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ANALYTICAL AND CRITICAL BIBLIOGRAPHY OF THE TRIBES OF TIERRA DEL FUEGO AND ADJACENT TERRITORY

BY

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LETTER OF TRANSMITTAL

Washington, D. C., *October 10, 1916.*

Sir: I have the honor to transmit herewith the manuscript of a memoir entitled "Analytical and Critical Bibliography of the Tribes of Tierra del Fuego and Adjacent Territory," by Rev. John M. Cooper, and to recommend its publication as a bulletin of the Bureau of American Ethnology.

Very respectfully,

F. W. Hodge,
Ethnologist-in-Charge.

Dr. Charles D. Walcott,
Secretary, Smithsonian Institution.

PREFACE

If we are entitled to accept the principle that the modern barbarian world has preserved to a fair degree the culture of humanity's adolescence, we may legitimately go a step farther and look to the modern savage world for some clue to the culture of humanity's childhood. Used with due reserve, our knowledge of savage culture may help toward a reconstruction of the earlier stages of prehistoric cultural development, but at any rate coördination of the facts must precede their interpretation, and in turn be preceded by intensive studies of the individual savage tribes.

The present work had its origin in such an attempt to find what light an intensive study of the available sources would throw on the culture, particularly the religion and morality, and on the cultural relations, of one of the most primitive aboriginal American groups. In the course of preparation references accumulated, and what began as a cultural study has ended as a bibliography.

I wish to take this opportunity to express my grateful appreciation first of all to Mr. Frederick W. Hodge, who has given me his valued counsel on many matters connected with the work. I am also indebted to him as well as to Mr. Wilberforce Eames for several important titles.

Dr. Aleš Hrdlička and Dr. John R. Swanton have generously given me the benefit of their expert knowledge and wide experience in their respective fields, although of course I should not like them to be held responsible for conclusions advanced in the work.

Prof. Charles Wellington Furlong, whose intimate personal knowledge of the Fuegian and Patagonian tribes makes him our foremost North American authority on their culture, has very kindly put at my disposal much of his invaluable manuscript material and has given me information on many obscure points.

The Rev. Dr. Antonio Cojazzi and Father José M. Beauvoir, both of the Salesian Society, have by letter helped to clear up for me several matters in connection with their own and their confrères' linguistic studies.

I have to thank Mr. Charles Martel, of the Library of Congress, for many kindnesses to me and for his valuable suggestions regarding bibliographical technique.

I am also under deep obligation for many privileges extended to me and for their unfailing courtesy in the many demands I made on their time and patience, to Mr. Charles W. Mead, of the American Museum of Natural History, and to the authorities of many of the libraries of Washington and elsewhere, especially of the Library of Congress, of the libraries of the Bureau of American Ethnology, the National Museum, the Surgeon General's Office, the Geological Survey, and the Pan-American Union, of the Day Missions Library of Yale, and of the New York Public Library.

John M. Cooper.

Washington, D. C., *September 11, 1916.*

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Plate 1. Map of the southern extreme of South America .... Facing page 64

ANALYTICAL AND CRITICAL BIBLIOGRAPHY OF THE TRIBES OF TIERRA DEL FUEGO AND ADJACENT TERRITORY

By John M. Cooper

INTRODUCTION

Scope of the Present Work

The present paper is intended as a practical or working guide to the sources for Fuegian and Chonoan anthropology. With this end in view, the writer has endeavored, first, to gather together, analyze, and evaluate the extant written sources; secondly, to draw up lists of references covering the various phases of anthropology; and, thirdly, to sift the available material for all evidence that might help toward clearing up obscure or debated points.

The work is divided into three parts: The Introduction, the Bibliography of Authors, and the Bibliography of Subjects.

The Introduction treats of the names, divisions, territories, and present conditions of the Fuegian and Chonoan Indians, and gives a short history of investigation with a summary of what has been accomplished and of what still remains to be done. The perplexing problem of the relations of the Alacaluf of the Strait of Magellan to the Chonos and natives of the West Patagonian Channels has called for somewhat extensive treatment.

The Author Bibliography aims to give an analysis and critical appreciation of each book and article, briefly or more at length in proportion to the importance of the work from the standpoint of the anthropologist. Nearly all second-hand works, and even most of the first-hand sources, demanded only short annotations; for, while the list of those who have written of the Fuegians and Chonos from personal observation is a comparatively long one, extending through nearly four centuries, the great majority of these explorers have had at the most merely a few hours of contact with the natives. Their descriptions are nearly always exact, and often valuable for the more obvious phases of material culture, but in most other respects have to be used with caution.

The bibliographies of somatology and linguistics are designed to be as exhaustive as possible; those dealing with culture are selective and are cast in the form of cultural outlines with emphasis on the bibliographical side.

Throughout the present work the term Anthropology is used in the broadest sense to include everything relating to the natives directly. The terms Somatology and Culture are employed for physical and cultural anthropology, respectively. Language would logically be included under culture, but for practical purposes the liberty has been taken of classifying it as the third subdivision of general anthropology.

General Division of Tribes

The Fuegian Archipelago is inhabited by three distinct tribes, the Yahgans of the south, the Alacaluf of the west, and the Onas of the east. The first two spend the greater part of their time on the water, whence their common name "Canoe Indians," while the natives of the third tribe have neither canoes nor horses, and are known as "Foot Indians." The three languages are, lexically at least, distinct, but the physical and cultural differences are in the main less marked between the Yahgans and Alacaluf than between these two tribes on the one hand and the Onas on the other. Of the Haush or Mánekenkn subtribe and of the "West Patagonian Canoe Indians" more will be said below.

The Chonos occupied the archipelagos between the Guaitecas Islands and the Taitao Peninsula or the Gulf of Peñas. Somatologically and culturally they resembled their more southerly neighbors, the Canoe Indians. Whether or not they spoke a language distinct from the Alacalufan can not be decided in the present state of our knowledge.

YAHGANS

Names

The most southerly of the Fuegians, and also the most southerly people of the world, are the Yahgans. The name is variously spelt Yagan, Yakan, Yaghan, etc., but should not be confused with the entirely distinct Yacana, Yacana-cunnee. The name Yahgan was given these Indians by the Rev. Thomas Bridges, from *Yahga*, their native name for the Murray Narrows district, a locality much frequented by them (Th. Bridges, *b*, Apr. 1, 1880, 74; *h*, 207.) They call themselves Yámana, that is, "living," "alive" (Th. Bridges, *h*, 207), or "men" (Th. Bridges, ll. c; Hyades, *q*, 14; Bove, *a*, 790; *b*, 132; *c*, 125; *d*, Arch., 288; Cojazzi, 15; Dabbene, *b*, 170; Lehmann-Nitsche, *d*, 230–231; Furlong, *j*; *b*, 126; Outes, *d*, 136).[1] Some of the earlier nineteenth century explorers dubbed them, from the word constantly on their lips, Yammascoonas, which means "be generous" (Garbe, 362; Hyades, *q*, 314; Martial, 30; Noguera). Admiral Fitz-Roy called one section of them by mistake Tekeenicas (*a*, 137), from *tekianaca*, 'not seen before, strange' (Th. Bridges, *h*, 207; Lovisato, *c*, 721; Dabbene, *b*, 169), or *Tac-cy-yennica-owena*, 'stranger men' (Despard, *b*, 746, 717). Cf. also discussion of origin of this name in Lovisato, *c*, 721; Martial, 209; Hyades, *q*, 282; Th. Bridges and Despard, ll. c.

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[1] The small (lower case italic) letters denote the corresponding article or book under the author's name in the Author Bibliography. The numbers, of course, refer to the pages. Where under the same letter in the bibliography two or more editions or translations are given, the page cited is from the first one entered thereunder, unless otherwise expressly stated.

The Alacaluf captured and taken aboard by Admiral Fitz-Roy called the Yahgans, Yapoos (Fitz-Roy, *a*, 203; King, 428), from the Yahgan word *aiapuk*, 'otter' (Th. Bridges, *h*, 207; Despard, *b*, 717).

TERRITORY

In the last century and probably from much earlier times the Yahgans occupied the shores of Beagle Channel and the islands south to Cape Horn. To the east they extended to the eastern end of Beagle Channel, and at times at least cruised nearly to the Straits of Lemaire (de Brosses, II, 208). To the west they reached as far as the western end of Beagle Channel, and, on Tierra del Fuego Island's shores and some of the islands to the southwest, even to Brecknock Peninsula (Th. Bridges, *b*, Oct. 1, 1884, 224). This latter point was in a broad sense the natural dividing line between the Yahgans and Alacaluf; of it Prof. Furlong (*j*; cf. also *r*, 174) writes: "To round the weather side of the long reach of Brecknock Peninsula, with its frowning cliffs and scarcely a landing place, in frail canoes, was something which only the most daring occasionally undertook. While to pass over its barren, unexplored mountain heights for these canoemen was impossible."

Between Good Success Bay and the eastern end of Beagle Channel there was considerable contact, linguistic borrowing, bartering, and intermarriage with the Onas (Th. Bridges, *b*, Mar. 1, 1876, 59; *e*, 332; *i*, cited by Hyades, *q*, 10; Lovisato, *c*, 720, citing Whaits; Hahn, *c*, 340; Martial, 185, 192). An equal or perhaps even greater amount of mingling with the Alacaluf occurred in the more or less mixed or neutral zone between Brecknock Peninsula and the western end of Beagle Channel (Th. Bridges, *b*, Feb. 2, 1874, 26–27; Oct. 1, 1881, 227; *e*, 332; *k*, 234; Lovisato, *c*, 720, citing Whaits; Spegazzini, *a*, 13).

Dr. Spegazzini (*a*, 4) was told that there were remains of other tribes or subtribes in Yahgan territory, and he mentions in particular the Pärri of Hermite Island and the Adwipliin of Londonderry Island. Prof. Furlong (*b*, 129; *j*) more recently divides the Yahgans into four family groups: the well-formed natives of the eastern Beagle Channel and vicinity, the big-headed, ugly, powerful Lennox

Islanders, the dwarfish Wollaston Islanders, and the warlike, murderous Hoste Islanders. The Pärri and Adwipliin were probably two of the small local groups or clans who were known by the names of the localities which they frequented (Th. Bridges, *b*, Oct. 1, 1884, 224; also quoted in Hyades, *l*, 718; cf. also Hyades, *j*, 149–150), while the considerable differences noted by Prof. Furlong correspond with what the Rev. Mr. Bridges remarked regarding the noticeable individual and local differences in the Yahgans' physical appearance and culture (Th. Bridges, *d*, 288–289; *h*, 206).

Dr. Hahn (*a*, 804), Capt. Martial (129, 208), and Dr. Spegazzini (*a*, 4; cf. also Barclay, *a*, 63) wrote as if there were two distinct Yahgan dialects, but Dr. Hyades (*p*, 339) explicitly states that there is only one Yahgan dialect. The Rev. Mr. Bridges, our best authority on the Yahgan language, seemed rather to share the former view; for, though not stating so explicitly, he wrote (*b*, Sept. 1, 1880, 196) that the inner coast Yahgans, the *Wiisinañala*, despised the ocean coast men, the *Atisimañala*, "because of their strange brogue," etc. Perhaps, too, Dr. Hyades was using the word dialect in a less inclusive sense.

Lexically the Yahgan language is quite distinct from both the Alacalufan and the Onan. Some few words of Yahgan show a resemblance to the Alacalufan, but in the present state of the evidence the resemblance is not sufficient to establish any solid ground for kinship. The same in less measure is true of the Yahgan and Onan tongues. There has been, moreover, a certain amount of borrowing from both the other tongues by the Yahgans (cf., e. g., Th. Bridges, *c*, 332; *k*, 234). Unfortunately, on the grammatical side sufficient Onan material is not available for comparison with the Yahgan, while of Alacalufan grammar we know not a single rule.

Somatologically the Yahgans and Alacaluf are very closely related. The Yahgans differ chiefly from the Alacaluf in being slightly shorter in stature and slightly less dolichocephalic, so Dr. Rudolf Martin concluded (*b*, 159, 210–211). The physical relations of the Yahgans and Alacaluf to the Onas are treated infra (p. 54).

Culturally the Yahgans and Alacaluf are almost identical so far as our information goes; but both tribes differ in many points from the Onas. For details, see Subject Bibliography, under Culture.

PRESENT CONDITION

Half a century ago the Yahgans may have numbered 3,000 or more, but by 1884 they had dwindled to about 1,000 (Th. Bridges, *b*, Oct. 1, 1884, 223; *d*, 289), by 1886 to about 400 (Th. Bridges, *b*, Oct. 1, 1886, 217), while according to what seems to be the most exact recent estimate, by the retired English missionary, Mr. John Lawrence (*S. Amer. miss. mag.*, 1913, XLVII, 145), there are now fewer than 100 survivors. Of this number 40 to 50 live on Beagle Channel and perhaps as many more beyond Murray Narrows southward as far as but not beyond Wollaston Island. Practically all have largely given up their native culture.

ALACALUF

NAMES

The western canoe-using Fuegians are the Alacaluf. The name is variously spelled. The following are the chief forms given by first-hand investigators: Alacaluf, Alakaluf, or Alacalouf (Th. Bridges, *k*, 233; Bove, *a*, *b*, *c*, *d;* Hyades, *q*, 12; Martial, 129, 184; Beauvoir, *b*, 14; the Salesians, as in Cojazzi, 15; Morales, 62); Alaculuf or Alaculoof (Th. Bridges, *b*, Apr. 1, 1880, 74; Oct. 1, 1881, 226–227 and usually thereafter; *e*, 331; *h*, 203, 210; *j*, 313; Lovisato, *b*, 129; *c*, 720); Alucäluf (Spegazzini, *a*, 4); Alukoelúf (Spegazzini, *c*, 132); Aloocu-loof (Th. Bridges, *b*, Feb. 2, 1874, 26); Ā́lookooloop or Ā́lukulup (Skottsberg, *a*, XXXII, 592; *d*, 578); Ā́lokolup (Skottsberg, *b*, 240); Alikhoolip (Fitz-Roy, *a*, 132, 140–141). Still other forms occur in anthropological literature, as Alikuluf or Alikaluf (Chamberlain, *a*, 89; Brinton, *c*, 331, for former), Alikoolif (Despard, *b*, 717), but these do not appear to have any independent value.

It is difficult to decide which is the true pronunciation. Perhaps it varies on the natives' lips, and probably too, given the great difficulty of catching Alacalufan words correctly, investigators have heard it differently. In the present work I have adopted the form Alacaluf, without presuming, of course, to decide against the other forms that rest on good first-hand evidence.

Admiral Fitz-Roy, the first investigator to use the name, designated by it the natives of the islands south of the Strait of Magellan from the western end of Beagle Channel to Cape Pillar (loc. cit.). From the uniformity with which explorers and residents since his time have used the name we may infer that it is the one by which the natives call themselves; although Dr. Skottsberg is the only writer, so far as I have observed, who expressly states so (*b*, 240, 242–243). Its meaning is not known.

Admiral Fitz-Roy (*a*, 132) gave the name Huemuls to the canoe-using Indians of Otway and Skyring Waters, because he found them in possession of many skins of that animal. He thought that they were perhaps a branch of Father Falkner's Yacanas or a mixed Patagonian and Fuegian people. This surmise, indorsed to a certain extent by Dr. Brinton (*c*, 331) and by Dr. Latcham (282–283), is rather contradicted by the linguistic (Lista, *e*, 41; J. Simpson, *b*, 88) and cultural data from this region, both being Alacalufan. According to the Rev. Mr. Bridges (*i*, in Hyades, *q*, 12), the Alacaluf used to go on hunting expeditions to the thick forests of western and southern

Patagonia. Then, too, in Mr. Bridges' time, the Dawson Islanders, who were as much Onan as Alacalufan in appearance, used to hunt deer as far as the Patagonian coast (Th. Bridges, *b*, June 1, 1883, 139; Feb. 1, 1886, 33). This might explain Admiral Fitz-Roy's theory of the Huemuls' mixed origin.

Bougainville (2d ed., I, 276, 290) and many after him called the Canoe Indians of the central part of the Strait Pecherais or Pécherais (spelled by others Pechera, Pecheri, Pesserai, Pissirí, etc.), from the expression they constantly used. It is not a tribal name, but its meaning is unknown. That it signified "friends" as Mr. Griewe (234), following Vargas Ponce (*a*, 349), states, or "son," "child," "boy," "man," as Lieut. Cevallos believed (Vargas Ponce, *b*, 28), is very doubtful, to say the least.

The canoe-using natives of Brunswick Peninsula and King William IV Land were called Guaïcaros according to Señor Lista (*d*; *c*, 41), while Señor Cox spoke (162¾, 165) of a supposedly mixed Tehuelchean and Fuegian people of the north shore of the Strait called Huaicurúes. According to the latter writer, they spoke a Tehuelchean dialect, but Señor Lista's Guaïcaro vocabulary (ibid.) is Alacalufan.

Father Falkner's Poy-yus or Peyes and Key-yus or Keyes (98–99) are classed by some writers as Alacalufan. Such classification rests on no tangible evidence.

Van Noort (*b*, 1st ed., 21; Commelin, I, 10; de Brosses, I, 298–299) was told that the natives met, and, incidentally, massacred, on the Penguin Islands, that is St. Martha and St. Magdalen Islands, in 1599, called themselves Enoo, and that other kindred tribes were the Kemenetes of Karay, the Kennekas of Karamay, and the Karaike of Morine. La Guilbaudiere in 1688–1696 divided the Magellanic natives into the Laguediche of the eastern mouth of the Strait of Magellan, the Teste igdiche of Jelouchetez Strait, that is, probably Magdalen Channel, and the Havequediche or Hauequediche and Cadegdiche of the St. Jerome Channel region and beyond; these were the names, he said, by which they called themselves (18–19; cf. also Villefort). Some of these names recur in Brinton (*c*, 331–332), Fr. Müller (*a*, 276), and d'Orbigny (*b*, Voyage, IV, pt. I, 187), but it would be unsafe to put reliance in them as distinct tribal names. Perhaps they were local clan or family names.

Of the use of the name Chonos to designate the Alacalufan natives of the West Patagonian Channels more will be said later.

TERRITORY

What territory do the Alacaluf occupy? There is great divergence of opinion. It will be well to distinguish between what is certain and agreed upon and what is questioned.

It is agreed that the Alacaluf have in recent times occupied the following territory: Desolation, Ines, and Clarence Islands with the adjacent islands south of the Strait, Dawson Island and the shores of Magdalen and Admiralty Sounds and of Gabriel and Cockburn Channels. In the Dawson Island and Admiralty Sound district, however, there has been considerable mingling, word-borrowing, and intermarriage between the Alacaluf and the Onas (Th. Bridges, *b*, June 1, 1883, 139; Feb. 1, 1886, 33, cf. also Oct. 1, 1881, 226; *k*, 234; Lovisato, *c*, 720, citing Whaits), just as there has been much fusion with the Yahgans in the border zone between Brecknock Peninsula and the western end of Beagle Channel (Th. Bridges, *b*, Feb. 2, 1874, 26–27; Oct. 1, 1881, 227; *k*, 234; Lovisato, *c*, 720; Spegazzini, *a*, 13).

While Brecknock Peninsula was the natural dividing line between the Yahgans and Alacaluf, it was not an absolute one. The Yahgans went west of this line but rarely, it seems, but the Alacaluf were pretty well established east of it, as the sources just quoted show. It appears, too, that in Admiral Fitz-Roy's time the Alacaluf extended as far east as the western end of Beagle Channel (Fitz-Roy, *a*, 132, and the whole account of the loss of and search for the stolen whaleboat in King). The natives met by Capt. Cook in Christmas Sound in 1774 used the characteristic Alacalufan expression *pechera* (J. Cook, *b*, II, 183), although their spear shafts were angular (G. Forster, II, 501), like those of the modern Yahgans.

Accounts similar to those of Francis Fletcher show that Indians using bark canoes formerly occupied the Strait as far east as Elizabeth, Martha, and Magdalen Islands. These natives were in all probability Alacaluf; although it is possible enough that Patagonians may have ventured out at times on these islands. In fact, certain details in some of the early accounts—for instance, van Noort's: the mention of ostriches, "la bout de la verge noué d'un fil" (*b*, 21; de Brosses, I, 298; cf. Ladrillero, 498)—suggest Patagonian rather than Fuegian provenance.

All the above-mentioned territory, except the Elizabeth Island district, lies south of the Strait of Magellan.

Do or did the Alacaluf extend north of the Strait? This is questioned. Canoe-using Indians have occupied from early times, or still occupy sporadically or at certain seasons, decimated and scattered though they now are, the shores of Otway and Skyring Waters, of Brunswick Peninsula, Riesco or King William IV Land, and Munoz Gamero Peninsula, the north shore of the Strait from Port Famine and Cape Froward to the Pacific, and the archipelagos with the neighboring fjords and inlets from the Strait to the Gulf of Peñas. Are these people to be classed as Alacaluf, or should they be considered as of a different tribe, non-Alacalufan, Chonoan, or "West Patagonian"?

The chief older opinions are those of Admiral Fitz-Roy, Capt. Bove, Mr. Whaits, cited by Dr. Lovisato, and Mr. Thomas Bridges, quoted by Dr. Hyades.

Admiral Fitz-Roy divided the above territory between the Pecherays of the central part of the Strait of Magellan, the Huemuls of Otway and Skyring Waters, and the Chonos of the territory between the north shore of the western end of the strait and Cape Tres Montes (*a*, 132, 142, 189). The Chonos were, he surmised, the survivors of the ancient Chonos Archipelago natives who had been driven south of Taitao Peninsula (*a*, 142). Each of the above three tribes, he states (*a*, 132), spoke a different language and was distinguished by certain cultural and physical characters. Admiral Fitz-Roy was followed by Dr. Ratzel (*b*) in calling the West Patagonian Channel natives Chonos. Dr. Coppinger more cautiously calls (54; ill. opp. p. 50) the natives south of the Gulf of Peñas "Channel Fuegians."

Capt. Bove (*b*, *c*, ethnologic map) marks most of this territory as Chonoan, adding, however, a question mark. Dr. Lovisato (*c*, 720), on the contrary, ascribes it more confidently to the Alacaluf, citing Mr. Whaits, of the English Mission, as his authority.

Dr. Hyades (*q*, map, and pp. 12–14, quoting Mr. Thomas Bridges; cf. also Martial, 184) divides the territory in question between the Alacaluf of the northern shore of the Strait, including Brunswick Peninsula, King William IV Land, Munoz Gamero Peninsula and the southern shores of Otway and Skyring Waters, and the Chonos of the West Patagonian Channels, including Obstruction Sound and Última Speranza Inlet, from the Queen Adelaide Archipelago north.

How much reliance can be put on these divisions? None of the above authorities, except, perhaps, to a very limited extent Mr. Bridges, spoke the Alacalufan tongue, and none except Admiral Fitz-Roy and perhaps Mr. Bridges had personal knowledge of the territory west of Cape Froward and the Brecknock Peninsula region (Bove, *a*, 790; *b*, 133; *c*, 124; *d*, *Arch. per l'antr.*, 288; see also itinerary of Bove expedition in Bove, *a*, *b*, or *c;* Hyades, *q*, 12). Capt. Bove does not give the grounds for his hypothetical division, Dr. Lovisato's is based on information given him by the Rev. Mr. Whaits of the Ushuaia Mission, while Dr. Hyades quotes the Rev. Mr. Bridges, who gave him "indications très précises" at Paris in 1886 (Hyades, *q*, 405).

At the time of the French and Italian explorers' visits in 1882–83, neither Mr. Bridges nor Mr. Whaits had had any but very limited contact with the Alacaluf, and neither spoke the Alacalufan language (Hyades, *q*, 13), although a little later (in 1884) Mr. Bridges and his son Despard were compiling an Alacalufan dictionary (Th. Bridges, *t*). Alacaluf at times put in an appearance at the Ushuaia Mission (Hyades, *q*, 13), and individuals of this tribe occasionally lived among the Yahgans (Hyades, *b*, 1344; *q*, 13, 224, 411–412). Much if not most of Mr. Bridges' information about the Alacaluf was gathered during "une longue tournée" (Hyades, *q*, 12) of a week (Barclay, *a*, 66) or several weeks (Dabbene, *b*, 213) in their territory in 1886, but how far west he reached is not stated. Nor is there, so far as the present writer can discover, any record of Mr. Whaits having made extensive journeys into Alacalufan territory.

All the above-mentioned authorities had had much experience among the Yahgans, but it is not clear that their statements, excepting perhaps Mr. Bridges', about the natives of the western and northern Magellanic region rest on sufficient personal investigation.

There remains to be discussed Admiral Fitz-Roy's division. Neither he nor his chief informant, Capt. Low, spoke any of the native languages. Admiral Fitz-Roy gathered his vocabulary by signs mainly, while Capt. Low, though intimately familiar with the "Chonos," had likewise to use the sign method in communicating with his captive Chono boy Bob (Fitz-Roy, *a*, 188–189, 129, 182, 193). The "Chono" vocabulary of three words (Fitz-Roy, *b*, 142) will be touched on later. It throws no light on our question. Moreover, Admiral Fitz-Roy was almost certainly mistaken in ascribing (*a*, 132) distinct languages to his Pecherays, Huemuls, and Alikhoolip, as more recent linguistic evidence shows. Can we then accept as convincing his linguistic distinction between these three tribes and the "Chonos," or between the Pecherays and Huemuls on the one hand and the Alikhoolip on the other? Nor finally can the hostility between the natives of the northern and southern shores of the western end of the strait (Fitz-Roy, *a*, 189) be taken as in itself a proof of tribal or linguistic distinction.

We may now pass to the chief of the more recent authorities. Dr. Dabbene (*b*, 207–208) and Prof. Chamberlain (*a*, 89–90) follow Mr. Bridges' division as cited by Dr. Hyades. Neither adduces any new evidence. Prof. Giglioli (*b*, 242) holds that the Alacaluf extend from Port Famine to the Gulf of Peñas. The Chilean and Argentinian anthropologists and naval officers as a rule consider the West Patagonian Channel natives as Alacalufan (Lehmann-Nitsche, *d*, 220; C. Martin, *d*, 365; Morales, 62; Pacheco, *a*, 53–54; *b*, 26; Porter, *a*, 525), while according to Dr. Latcham (279) the Alacaluf formerly reached probably to Chiloé. A similar opinion is also quoted by Dr. Medina (*a*, 111) from the *Rejistro de la marina de la República de Chile*, 1848, page 44. A recent visitor to the Patagonian Channels reports being told by the pilot of the vessel that the same tongue is spoken from Cape Froward to the Gulf of Peñas (Wilda, III, 272).

According to the Salesian missionaries (Cojazzi, 15, 123; Beauvoir, *b*, 14; Whiteside, 19–20), the Alacaluf occupy both shores of the Strait, Última Speranza Inlet, and the Queen Adelaide and S. Madre de Dios Archipelagos. The Salesian fathers are in close touch with the Alacaluf at Dawson Island. They also make journeys into Alacalufan territory, and in 1910 Father Renzi (Cojazzi, 16) made an extensive tour, but I have not at hand exact data of their routes.

Finally, Dr. Skottsberg brought back from his expedition of 1908 some important new linguistic material gathered in the territory in question. From a detailed comparison of this material with the Alacalufan vocabularies published by Admiral Fitz-Roy and Dr. Hyades, he concludes that the Alacaluf are all south of the Strait. All the disputed territory is occupied by a non-Alacalufan people whom he calls "West Patagonian Canoe Indians." They would speak a language totally different from the Alacalufan (Skottsberg, *d*, 614, 580, 611; *b*, 242–243).

So much for the chief views. As appears, the general tendency of recent writers, if we except Dr. Skottsberg, is to allot part or all of the West Patagonian Channel region to the Alacaluf. We may now investigate the available evidence—linguistic, somatological, and cultural.

A. LINGUISTIC EVIDENCE

Nothing has thus far been published on Alacalufan grammar, if we except a brief note of doubtful value by Lieut. Cevallos (Vargas Ponce, *b*, 27) and the mere general statements by the Rev. Mr. Bridges (Barclay, *a*, 66) and Dr. Spegazzini (*c*, 132) that the Alacalufan differs structurally from the Yahgan tongue. We are obliged, therefore, to confine our comparative study to the available lexical material.

In compiling the comparative glossary given below, 15 of the 17 extant vocabularies have been utilized, as have also some stray words occurring in various narratives. The present writer unfortunately has not had access to Dr. Spegazzini's (*c*) short list, nor to Messrs. Thomas and Despard Bridges' lengthy one (*t*), both being still in manuscript. Fuller details regarding the sources used are given in the Author Bibliography. It will be sufficient here briefly to classify and describe the utilized lexical material.

The more important vocabularies used are the following: La Guilbaudiere's (8–13; Marcel, *b*) of 225 words and phrases gathered between 1688[1] and 1696 in the Port Gallant district; Admiral Fitz-Roy's (*b*, 135–140) of 208 words gathered in 1830–31 from the four natives, three of them Alacaluf of the Brecknock Peninsula region, whom he took to England; Dr. Hyades' (*q*, 272–277) of the same 208 words gathered in 1882–83 from an Alacaluf woman whom he attended for a long time at Orange Bay in Yahgan territory; Father

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[1] Or perhaps 1685 (Cf. Manuel de Odriozola's *Coleccion de documentos literarios del Peru*, II, Lima, 1864, p. 18).

Borgatello's (Cojazzi, 125–140) of 592 words, phrases, and sentences gathered at Dawson Island from mission Alacaluf who apparently come chiefly from the territory east of Port Gallant and south of the Strait; Dr. Skottsberg's (*d*, 606–614; *e*, 411–413) of 301 words and sentences gathered in 1908 from Emilia, a native woman of Port Gallant, who accompanied the expedition as interpreter, from the natives of Port Gallant and Port Bueno, and in a minimal degree from those of Port Grappler.

The 10 shorter lists used, which contain from a dozen to half a hundred words each, are as follows: Dr. Fenton's (Hyades, *q*, 278–279) of 46 words gathered from three native women who had been captured in Crooked Reach in 1876 and brought to Punta Arenas; Dr. Hyades' shorter vocabulary (*q*, 279) of 13 words gathered from Cyrille, a 9-year-old Alacaluf boy, who in addition verified Dr. Fenton's list and gave synonyms for three words in the same; Lieuts. J. Simpson and Chaigneau's (*b*, 88) of 26 words, taken from one of a group of natives met casually in 1879 at the foot of Mount Dynevor Castle in Skyring Water; Dr. Coppinger's (122) of 50 words and 5 children's names gathered in 1880 from an old native at Tilly Bay and subsequently verified in part among the Port Gallant Indians; Dr. Lucy-Fossarieu's (175) of 12 words, and Dr. Seitz's (*a*, 184) of 18 words, both gathered from the Hagenbeck group of Alacaluf, who were exhibited in Europe in 1880–81 and who apparently came from either Clarence Island (Hyades, *p*, 342), or more likely Dawson Island (Th. Bridges, *b*, June 1, 1883, 139); Dr. Spegazzini's of 13 plant names (*d*) and 2 other words (*a*, 5, 7) gathered in 1882, probably at Ushuaia from Alacalufan transients; Señor Lista's (*d; e*, 41) of 19 words gathered, apparently about 1895, from a "Guaïcaro doctor," then living in Patagonia, whose people had come from Brunswick Peninsula and King William IV's Land; Father Beauvoir's (*a*, 7–8) of 41 words, some of which were gathered probably from Alacaluf at Dawson Island Mission; Señor Iriarte's (Whiteside, 18–20) of 43 words gathered in 1904 from two native boys taken aboard Capt. Whiteside's ship at Última Speranza.

The stray words mentioned above are the following: 5 in Duclos-Guyot (*b*, vol. II, 672, 674, 681); 3 in Cevallos (Vargas Ponce, *b*, 27–28); 4 in King (53, 77, 320, 343); 2 in Meriais (385–386); 1 each in Macdouall (110), Topinard (775), and Wyse (534); 3 "Chono" words in Fitz-Roy (*b*, 142); 10 local names in Sarmiento (203–210; *An. hidr.*, VII, 493–497); 2 tribal names in Villefort (de Brosses, II, 120); 4 words and some tribal and local names, perhaps, however, of Patagonian origin, in van Noort (*b*, 1st ed., 21; Commelin, I, 10; de Brosses, I, 298–299).

GLOSSARY

PREFATORY NOTES

A. The comparative glossary given below contains all and only those words for which there is sufficient material available for purposes of comparative study. Where any reasonable ground exists for suspecting the presence of Yahgan, Onan, or Tehuelchean intrusions in the Alacalufan vocabularies, the respective equivalents in these languages are given. The Yahgan material has been taken chiefly from the following sources: Hyades, *q;* Th. Bridges, *p;* Platzmann; Garbe; Spegazzini, *c;* Despard, *b;* Bove, *b* and *c;* Eizaguirre; Noguera; Fitz-Roy, *b*. The Ona and Tehuelche words are in the main from Lehmann-Nitsche, *d;* Beauvoir, *b;* C. Gallardo; Lista, *b;* Segers.

B. The words are grouped, where feasible, topically and to a certain extent etymologically.

C. The following abbreviations are used for the 15 vocabularies: Be, Beauvoir; Bo, Borgatello; Co, Coppinger; Cy, Cyrille; Fe, Fenton; Fi, Fitz-Roy; G, La Guilbaudiere; H, Hyades; Ir, Iriarte; Li, Lista; Lu, Lucy-Fossarieu; Se, Seitz; Si, Simpson and Chaigneau; Sk, Skottsberg; Sp, Spegazzini.

D. It seemed advisable to leave to hands more experienced in linguistics the task of reducing the various lists to a uniform alphabetic system. It should be borne in mind, therefore, that the words from Cy, Fe, G, H, Lu are to be pronounced as in French; those from Fi, Co as in English; those from Se as in German; those from Bo as in Italian; those from Be, Ir, Li, Si, as in Spanish. In the plant names from Sp *c* is pronounced like the Italian *c* before *e* and *i*. Dr. Skottsberg used the following phonetic alphabet: *a* = *a* in German Hand; *e* = *e* in English get; *i* = *i* in German Kind; *y* = *ü* in German Glück; *o* = *o* in German Gott; *u* = *u* in English bull; *a͡u* = diphthongal *au;* *r* is pronounced with the point of the tongue and is a very hard trill; *ɹ* is the uvular trill like the French *r* and is sometimes so hard and sharp that it closely resembles *k;* *x* = a very hard Spanish *j;* *R* = surd *r*; *ă*, *ĕ*, *ĭ*, very short, imperfect *a*, *e*, *i*; *ä* = *a* in English hand; *ö* = *eu* in French seul; *w* = English *w*, as in wet; *j* = English *y* in yes, but more sibilant; *č* = a more palatal *ch* than in English child; *š* = English *sh*; *š'* = palatalized *š*; (ʻ) = aspiration; (–) = length of vowel; (·) = principal stress; (:) = secondary stress (Skottsberg, *d*, 606, 614).

E. In a great many cases, two or more words which may appear at first sight to be different are seen on closer examination to be identical except for the addition or omission of a letter or two. The more common added or omitted letters are: (1) *s*, *sh:* e. g., speak, Bo, *ktéi*, Sk, *kstiš';* egg, Bo, *iórel*, Sk, *jo·ri(š')l;* island, Sk, *a·liš'ka:rrR*, Bo, *ál-licáre;* spear, Bo, *áfdacór*, Cy, *ioftokçkarh;* (2) *k*, *ch:* e. g., sun, Bo, *árreluk*, Sk, *arrx-ā·luk;* hair, Fi, *ay'ŭ*, Si, *ayiuk;* cheek, H, *laïtakoufké*, Fi, *clĭt'kŏpcă;* neck, H, *chélaïké,* Sk, *kja͡u·š'lerrxārR;* (3) *l, m, n, r:* e. g., bow, Fi, *kĕrĕc-căna,* Bo, *kiéràcálá;* arrow, Bo, *árce, árscel,* Sk, *a·rxkje:l;* fish, Bo, *iauciél,* Sk. *ja͡u·čerR;* sea, Bo, *ciâpl,* Fi, *chah'bŭcl, chah'bŭel,* H, *choun-bil;* tongue, H, *louk-aï,* Fi, *lŭc'kĭn,* Fe, *lékeurh',* Sk, *lökl;* (4) *f:* e. g., large, Fi, *ŏw'quĕl,* H, *haouf kil.* There are also some instances of reduplication and metathesis: e. g., good, Fe, *laïp,* H, *la-laïf;* eye, Li, *têl,* H, *tétél-ô;* dog, Fi, *shil'ŏkĕ,* H, *tçikoul-élé;* cry, Fi, *yĕlk'ĕstă,* Bo, *lóksda, lóskda.* It is difficult to assign the causes of these changes. They may be due to mistakes of explorers, to the occurrence of synonyms, to local, dialectic, or individual differences of pronunciation among the natives, and to Alacalufan rules of word building, a subject on which there is no literature extant.

F. In the notes appended to the glossary the writer has confined himself in most cases to directing attention to resemblances without drawing final conclusions. In many cases the resemblance is unmistakable, while in others it ranges from fairly clear to merely probable or possible. Some of the suggested resemblances no doubt will turn out with fuller knowledge to be only coincidences, and on the other hand some words not so grouped together will prove later in all probability to be really related.

GROUP I

1. **Male.** Fe,-*arak;* [1] Bo, *árek;* Sk, *ārrk.*
2. **Female.** Fe,-*oualaki;* [2] Bo, *uálek;* Sk, *wā·lökʿ.*
3. **Man.** H, *hékayé, hékaïné* (=many men); Be, *hoiken;* Fi, *ăck'ĭnĭsh, ackhĭnĕsh* (=many men); G, *accheleche;* [3] Sk, *a·kšĕš, i·ppā* [4] (=white man); Fe, *yp'pa;* Bo, *ipa* (=Indian man), *pállieri,* [5] *pélierí;* Li, *pellieri;* Duclos-Guyot, *pach-pache-ve;* Cevallos, *pissirí.*
4. **Woman.** H, *ayékalabich;* Bo, *áóik-cúlesc* [6] (=old woman); G, *accheletep coqueliche* (=old woman); Fi, *ătlarăbĭsh, ăck'hănăsh;* Se, *wischkuna;* H, *ekinech, çiparch;* Fe, *ypa'çélis;* [7] Sk, *ippā·š'elis* (=white woman), *čirkš';* Bo, *scéls, scirkl* (=wife), *scérkrs* (=woman or wife); Ir, *yagsak;* Li, *esnatun.*
5. **Husband.** H, *hérr;* Fi, *ăr'rĭk;* Bo, *ciálákl, kuél-clócui, caulúklér* (=to be born).
6. **Wife.** H, *elouchélouka;* Fi, *ăshwă'llŭk;* Sk, *kja͡u·ja;* [8] Bo, *kiáuya* (=married woman), *chiáuiakúi* (=marriage), *chiáuiátái* (="sposa"=bride or wife).
7. **Old man.** H, *kir-arouarh, kaouach* (=grandfather); Fi, *kĕr'ŏwĭsh, cowĭsh* or *caŭwĭsh* (=grandfather); G, *accheleche coyquep;* Bo, *orchép, teruéja,* [9] *terrueá* or *áfg chiáusesc* or *cieciár* (=grandfather).
8. **Old woman.** Bo, *teruéja scéls, téruescikísc, áfg chiáusesc* (=grandmother); H, *kiouchaïléou* (=grandmother); Fi, *caŭshĭllĭsh* (=grandmother).
9. **Uncle.** Bo, *ciék-quéico, ciácuícuo, icircáscesc, ciék-cuéico* (=relatives), *cék-cuéico* (=brother-in-law), *ciéciár.*

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[1] Cf. 5, H, Fi; *arh* in 7, H; *arR* in 10, Sk; *ar* in 10, Bo.

[2] Cf. *elouka* in 6, H; *walluk* in 6, Fi.

[3] Cf. 4, H, Bo, G, Fi, H.

[4] Cf. 4, Fe, Sk.

[5] Cf. 14, H, Fi.

[6] The combinations *l-k* and *l-k-l* occur in many of the above words in 2, 4, 6, 12-5. This may be mere coincidence, but there is a suggestive resemblance to the word for "female."

[7] Cf. 8, Bo; *chaileou* in 8, H; *shillish* in 8, Fi; *sces* in 13, Bo; 15, Sk.

[8] Cf. *kir-aroua, kaoua* in 7, H; *kerour, cowi, cauwi* in 7, Fi; *coy* in 7, G; *chiau* in 8, Bo; *kiou* in 8, H; *cau* in 8, Fi; *kue* in 5, Bo; *cuei, quei, cui* in 9.

[9] Cf. 8, Bo; 10, Bo. There is a resemblance to the Yahgan *darou oua* (Hyades, *q,* 267), *dar-rua* (Bove), *dahruhuä* (=old, Platzmann), for old man, but perhaps only an accidental one.

10. **Father.** H, *tétéçaou;* Fi,[1] *cha'ŭl;* Sk, *či·čārR;* Bo, *céciár* or *térueiór* (=papa), *térnéia.*

11. **Mother.** H, *chaki;* Fi, *chăhp;* Sk, *čāp;* Bo, *ciâp, ciâpel* (=mama); Duclos-Guyot, *cap-cap* (=woman).

12. **Brother.** H, *yéri;* Fi, *ăr're;*[2] G, *arry;* Bo, *arri, árri-cél-lac* (=cousin); Be, *arilaik.*

13. **Sister.** Bo, *erréscés; árrésces* or *uásc-cu* (=aunt), *hárrí;* G, *arry;* H, *chouaïkl;* Fi, *chol'ĭcl.*

14. **Son.** H, *péhél, merr'-aïou;*[3] Fi, *părăl;* Sk, *te·löksta;* Bo, *cátalalstá, áyol;* G, *lapan.*

15. **Daughter.** Sk, *telökstā·-š'eliš'* (or *-s*); Bo, *áyol.*

16. **Granddaughter.** H, *youou kipa;*[4] Fi, *yărrŭkepă.*

17. **Small.** H, *choukou, aïkoul-hata;* Fi, *shoks, yĭco'ăt;*[5] Bo, *i-chiót, áiol-ichiól;* Sk, *i·kja͡u:t;* G, *ycot* (=it is small).

18. **Boy.** H, *yél-ouaoua,*[6] *yatcé-é;* Fi, *a'ĭl-walkh;*[7] Fe, *yaoul'ykaout;* Sk, *ä·jo:l;* King, *yāl-lă-bă* (=youth?).

19. **Girl.** H, *an-né;*[8] Fi, *ăn'nă;* Fe, *yaouch'ykaout;* Sk, *ä·ja͡u:š';*[9] Bo, *áyol siércát* [=*áyols iércát?*], *agósce* (=damsel).

20. **Child.** H, *pétité, aïé-hém,*[10] *yakaora* (=children); Fi, *pătete;* King, *peteet;* G, *yapetitgouelle.*

21. **Baby.** H, *tçifhkachoua, kouche-i;* Fi, *cos'hĕ;* Bo, *sir-ichiód* or *áyol* (=male), *ichiód* or *áyol* (=female); G, *alla* (=to give birth to); Sk, *ti-kja͡uš'* (=to bear a child).

Group II

1. **Bone.** Sk, *kārR;*[11] Bo, *cár;* H, *ouchka-é,*[12] *tçélé-karh;* Fi, *osh'kiă.*

2. **Eye.** H, *tétél-ó;* Fi, *tĕlkh;*[13] Fe, *délh';* Sk, *teš'l;* Bo, *telk, téls;* Be, *telh;* G, *titche;* Si, *tesh-pu;* Ir, *tez-tash;* Li, *têl, téel;* Co, *sthole;* Lu, *te'leh-kwa;* Se, *decorliqua.*

3. **Eyebrow.** H, *youpouch-té;* Fi, *tĕth'-lĭu;* Bo, *téléincú, télciúcu;* Si, *tesh ayiuk;* Co, *theseoux;* G, *titchery.*

4. **Eyelash.** Si, *tesh-erik;* Co, *thesseriss;* H, *lourh.*

5. **Hair.** H, *yéyér;* Fi, *ay'ŭ;* Si, *ayiuk*[14] (=hair or down), *terua-ayiuk* (=down of arm); Fe, *térhkaoufh';* Sk, *te·rrkö:f;* Bo, *tér-káf;* Be, *terscaf;* Li, *tercóf;* G, *tercaf;* Co, *therkous;* Cy, *terkarh'* (= feathers).

6. **See.** Sk, *lö·kjor, la·ksxā:r* (=binocle); Bo, *lúk* (=I saw), *leksceläk* or *liksciúr* (=I see); G, *lache.*

7. **Look.** Bo, *lél-lelái;* G, *qualeona;* H, *ououkou-haï.*

8. **Ear.** H, *til-hé, li-a-a;* Fi, *tĕl'dĭl;* Fe, *délh'kooulo;* Sk, *te·lka:olo;* Cy, *kaoui;* Bo, *chiáui;* Co, *hawish;* Be, *kiawin;* Ir, *káhuel;* G, *couercal;* Sk, *ku·rrxš'kial*(?); Lu, *korehl'kel-kwa;* Bo, *colcár.*

9. **Hear.** H, *til-lach;* Fi, *tĕl'lĭsh;* Sk, *ti·lš'kior;* Bo, *télek scélak.*

10. **Forehead.** H, *lichi, aoulapa;* Fi, *tĕl'-chĕ;* Bo, *tél-kár;* Be, *tel-kar;* Sk, *teš'l-kārR;* Si, *kioftalka;* G, *arcacol.*

11. **Face.** Sk, *tö·šlka:l, te·lksɹar* (=pipe); Bo, *télkar, télscar* or *áshákar* (=pipe); Si, *kichipskiai.*

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[1] *Ça-, cha-, či-, ce-* are apparently the same. Cf. 11; 5, Bo; 9; 7, Bo.

[2] Cf. 13, Bo, G.

[3] Son in Yahgan is *magou* or *makou* (Hyades, *q*, 269, 298), *ma-cu* (Bove), *mărriŭ* (Fitz-Roy).

[4] Woman in Yahgan is *kepă* (Fitz-Roy), *chipa* (Bove), *kipa* (Hyades, *q*, 297, 316), *keepa* (Bridges, p. 55). Cf. Yahgan *jahruh kihpä* (=girl, Platzmann).

[5] *Aiol, ail, ajol, yaoul*, etc., and *yicoat, ikjaut, iercat*, etc., occur in most of the words in 17-9, 21.

[6] The combination of vowels is suggestive of Yahgan. Cf. also the Yahgan for boy, *walewa* (Noguera), *ouaïlaoua* (Hyades, *q*, 265), *ualle-iva* (Bove), *ûalêiwa* (Spegazzini, *c*, 142).

[7] Perhaps=girl, scil., *a'il*+*ualek*(=little+female).

[8] Cf. Yahgan *winni* (=my elder sister, Bridges, *p*, 54).

[9] Cf. *yaouch* in 19, Fe; *agosce*, 19, Bo; 21, H, Fi; 18, H. Perhaps=*i·kja͡u:t*+*s* or +*š'*.

[10] Cf. Yahgan for little, *yaka* (Hyades, *q*, 267)' *yeeka* (Bridges, *p*, 69), *jac-ca* (Bove), *yŭc'că* (Fitz-Roy). Final *m* is often barely audible in Yahgan.

[11] Enters into combination with a great many words. Cf. 5, Cy; 10, Bo, Be, Sk; 11; 14, Bo; 20, Li. Shortened in 10, Fi, Si; 14, Fi, H. For use with affix *af*, see note 1 on next page.

[12] Perhaps *höš karR* or *ásc cár* (=my bone).

[13] *Tel, telk, tesh*, etc., occurs in many words in 2-4, 8-11, all words referring to upper part of head or functions of sight and hearing. There may be more than one stem, but it is difficult to isolate them.

[14] Apparently in combination in 3, Fi, Bo, Si, Co; 16, Sk, Fe, Bo, Si, Ir. The forms in 3, G and 4, Si, Co seem to be from a different stem. Whether 5, H should be classed with *ayiuk* or *erik* is doubtful. *Ter-kaf* is perhaps the proper term for "hair of the head."

12. **Nose.** H, *noul;* Fi, *nohl;* Cy, *noëlh;* Se, *nosqua;* Sk, *la͡u·xl;* Co, *los;* G, *loutche;* Bo, *lo, oliélicsda;* Be, *olelelsteiskat;* Lu, *chlia're-kwa;* Fe, *tcharikh;* Li, *huicharek;* Ir, *mans.*

13. **Smell.** H, *ouk-chi, aï érrh;* Fi, *ŭc'she.*

14. **Cheek.** H, *yélaaçil, laïtakoufké;* Fi, *clĭt'khŏpcă;* Bo, *clécepkar;* Sk, *či·pipr;* G, *cheltefarre.*

15. **Chin.** H, *oufké-ini;*[1] Fi, *ŭf'ca;* G, *ascart;* Sk, *afā·tĕlĕš';* Bo, *áfatelésc.*

16. **Beard.** Sk, *ā·fejuk;* Fe, *afouiouk';* Bo, *áffaiúcu;* Si, *ofsh ayiuk* (=mustache), *of kesh;* Ir, *affshiayo* (=mustache); Se, *hoschiamqua;* Co, *port.*

17. **Lip.** H, *yér-ha;*[2] Sk, *afĕ·rĕ;* Be, *affiry;* Bo, *áfierí, áufirí;* G, *affirie.*

18. **Mouth.** Fi, *ŭf'fĕăre;* H, *oufiéli;* G, *afflet;* Sk, *a·fltai;* Bo, *afkldái, afguldá;* Be, *afftakal;* Cy, *oftékalh;* Li, *asfjestail;* Lu, *anf'kle'richl-kwa;* Ir, *affshink.*

19. **Drink.** Fi, *ăfkhĕl'lă;* H, *efkil-élé, tçakoul-élé;* Bo, *ácciáquár* (=drink water), *ácciáquár áfeár* (=drink to).

20. **Tooth, teeth.** H, *kaouéch, kélaïch* (=gums); Fi, *căŭwăsh, car'lĭsh;* Fe, *çirikti;* Sk, *če·ɹegdi;* Bo, *scérikdé;* Be, *scerikti;* G, *cherecdye;* Ir, *scerecte;* Si, *terrekiti;* Lu, *che'rik'til-kwa;* Se, *tschiligiqua;* Co, *sheriquish* (=tooth of seal), *pathers;* Li, *lefeskar.*[3]

21. **Eat.** H, *yo-arh, louf-aïch* (=also to chew); Fi, *lŭf' fĭsh;* Sk, *lö·fi:š'* (=food); G, *laplap;* Bo, *léfêsc, léffisc, láffaila(s)* (=we shall eat), *tŏl;* Be, *tohola.*

22. **Tongue.** H, *louk-aï;*[4] Fi, *lŭc'kĭn;* Sk, *lökl;* Be, *lejéhl;* Bo, *lekel, léc-chiél, lecuiél;* Lu, *le'kel-kwa;* Se, *lekkersqua, lecorqua;* Fe, *lékeurh';* Co, *lekiss;* Ir, *alajte, alot;* G, *paileaf* (or *pailcaf*?).

23. **Cry.** H, *akalaï-pakal;* Fi, *yĕlk'ĕstă;* Bo, *lóksda* or *lókstá* (=a cry or call), *lóskda, lél-lelay* (="chiamare"), *léktál* (=sing); Li, *lektan* (=sing); G, *talcay* (=sing).

24. **Laugh.** Sk, *a·lökš'ta;* Bo, *álesc, álacái;* G, *pechil;* Fi, *fĕay'l;* H, *çiouiali.*

25. **Cough.** Fi, *yilkĕă;* H, *tiachkacha ouala;* Fe, *a-hâ-hâ;* Bo, *áôó, á-o-o.*

26. **Whistle.** H, *ouf-ça-kaské;* Fi, *ŭfshĕxcă.*

27. **Weep.** Sk, *a·tɹi(š')sta;* Li, *etkastal;* Bo, *át-kósciá, áteoista, átcasta+.*

28. **Speak.** H, *yéyayé-afté;*[5] Fi, *yăc'ăftă;* Sk, *kstiš', kja͡u·kr-kstiš'* (=to answer); Bo, *ktéi, sté* (=imperative, speak!).

Group III

1. **Head.** Cy, *ourkouarh';* Be, *orkuar;* Bo, *orcuár, or-cún* (=brain); Li, *hurkúar;* Ir, *kalvig, kabork;* Co, *iakalus;* G, *yacabedchepy;* H, *loukémi, lachoukal*[6] (=occiput); Fi, *ŏf'chŏckă.*

2. **Shoulder.** H, *chouikl;* Fi, *chŏ'ŭks;* Bo, *ciúkskár,*[7] *icióf skár.*

3. **Neck.** H, *chélaïké;* Fi, *chah'lĭkhă;* Sk, *kja͡u·š'lerrxārR;* Bo, *chióltalcuár, cialésda;* Be, *chal'erskal;* G, *irsetel.*

4. **Throat.** Sk, *je·lka:rrR;* G, *ilcart;* Bo, *il-kár* or *cialúsda* (=Adam's apple), *ciálusda.*

5. **Chest.** H, *iétçihor, yakaouachou* (=skin of body); Fi, *yăca'bĭshăcŭn'nĕ;* Sk, *kje·pxa:rrR;* Bo, *chiépkar, kiépcar* (=stomach).

6. **Heart.** Sk, *či·llak;* Bo, *ciélak, ciélácdo.*

7. **Blood.** Sk, *ki·blajk;* Be, *keplaik;* Bo, *chiépélaik;* H, *choum-bi;* Fi, *shŭb'bă.*[8]

8. **Back.** H, *toukouli;* Fi, *tŭccăler'khĭtĕ;* Bo, *tócaldgte* (=backbone).

9. **Intestines.**[9] Sk, *ka͡u·tkstl;* Bo, *kiótistél.*

10. **Hip.** H, *kala-kaïstél;* Fi, *cŏl'khĭstăl.*

11. **Belly.** Bo, *káciél, cácelsda* (="cintura"); Be, *kae'chel;* Sk, *kai·tš'el* (=stomach); G, *quedebchel* (=buttocks); Co, *kutshiss* (=stomach); G, *couchetaye* (=navel), *gabedie;* Fi, *kŭppŭdde;* H, *koupou,*[10] *yé-ouaouar.*

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[1] *Ouf, af, afsh,* etc., occurs repeatedly in words for the lower parts of the head and activities connected therewith. Cf. 15-9, 26. The combination of *af,* etc., with *cár* (=bone), often shortened into *afka, afk, afg,* occurs quite often. Cf. 15, H, Fi, G; 18, Bo; 19, Fi, H.

[2] Cf. Yahgan for lips, *ya-ha* (Noguera); *yá* (=mouth, Eizaguirre).

[3] *Léfêsc+cár*=eating+bone.

[4] The combination *l-k* apparently occurs in 23, Fi, Bo; 24, Sk, Bo; 25, Fi.

[5] *-afté, -afta,* perhaps=*af+(k) téi.*

[6] This and following word apparently contain the syllable *čuk,* which occurs also in 2.

[7] *Kar*=bone. Cf. 1, Fi; 4; 5, Sk, Bo; 12, Bo, Be; 16, Bo, Be; 17 (?); 20, Fe, Sk, Bo; 22, Bo, and possibly others, such as 3, H, Fi, Sk, Bo, etc.

[8] Yahgan for blood is *çapa* (Hyades, *q,* 265), *sapa* (Bove), *sahpä* (Platzmann).

[9] Most of the words in 9, 10, and 11 seem to be related.

[10] Yahgan for navel is *koupou* or *koupfou* (Hyades, *q,* 290).

12. **Arm.** H, *tçioualifç, kaïnebi;*[1] Fi, *tŏ'quĭm'be;* Sk, *ta͡u·kwe:l;* Bo, *tacúlpélkár,*[2] *percár, terruá;* Be, *per-karr;* Lu, *perchl-kwa;* Si, *terua-ayiuk* (=down of arm); Ir, *appail;* Li, *merr;* G, *yabedchart.*

13. **Elbow.** H, *koukouch;* Fi, *yŏc'kĕ.*

14. **Forearm.** Fi, *yŭc'căbă;* H, *youkébé, kér-mahi.*

15. **Wrist.** H, *ayo-kouil, taç-çel-labé;* Fi, *ăccăl'lăbă;* Bo, *scárrek.*

16. **Hand.** H, *youkébé, your-oul* (=fist); Fi, *yŭc'căbă, ŭf'shĕbă* (=fist); G, *yacabed charcal* (=fists); Fe, *ter'va;* Sk, *te·rrwa;* Si, *terua;* Li, *teregua;* Ir, *tanna;* Co, *therrawaus;* Lu, *dero'alehl-kwa;* Bo, *párcar;* Be, *peher;* Se, *corocaschqua.*

17. **Finger.** G, *yacabed charcal touf-;* Bo, *tólscartefé, tólscar;* Fe, *darkalkhl;* Sk, *ta͡u·xlxa:rkl;* G, *tortecoualque* (=toe); Li, *fol-karjk;*[3] H, *houlé;* Fi, *skŭl'lă;* Co, *sthoen;* Ir, *affshower.*[4]

18. **Thumb.** Bo, *áf-ció;* Sk, *aiš';* Fi, *ŭshcŭc'cŭn;*[5] H, *ouchkoukoun, lé.*

19. **Finger nail.** Co, *tharsh;* Si, *kiosharti;* Cy, *toskarkçe;* Bo, *tólscar,* (*télcárkl*); Sk, *jekl(-ta͡u·xlxa:rkl)*; Ir, *taultaul;* G, *teltelou;* H, *yachkoul;*[6] Fi, *esh'cŭl.*

20. **Leg.** H, *ayé-té;* Fi, *cŭt;*[7] Fe, *kath'karrh';* Sk, *kat, ka·txkārR;* Be, *kat;* Bo, *kât, kát-cár;* G, *cat;* Ir, *kat;* Lu, *kalt-kwa;* Co, *kutchoice* (=calf).

21. **Thigh.** Fe, *kath;* H, *kout-lambé;* Fi, *cŭt'lăbă;* G, *catcherbouel* (or *catcherboucl?*);[8] Sk, *ā·iš'u;* Bo, *áisióu, áiscóbe* (=buttocks); Si, *yiacaspeyeper.*

22. **Knee.** H, *toulén doulou;*[9] Fi, *tŭl'dŭl;* Sk, *skoi·bī:š';* Bo, *kól-pacár;* Ir, *kotchenkiau.*

23. **Ankle.** H, *tçikouli;* Fi, *acŭl'lăbe.*

24. **Foot.** Ir, *thocuer;* Fe, *tchou'kourrh';*[10] Bo, *ciáquór* (=shoes); Sk, *če·ku:rR, kia͡u·tbi* (=heel); Bo, *cât, cát-câl* (=sole of foot), *cál-chiól* (=heel); Fi, *cŭt'lĭcŭlcŭl;* H, *laïkoulkoultél, ilél;* Be, *katzors;* Co, *kadthakous;* Lu, *djo'kochl-kwa.*[11]

Group IV

1. **Day.** Bo, *kála, stásc, láufg* (=now), *cála* (=clear); Be, *kala;* G, *cala;* Sk, *kā·lögti,*[12] *lāfk* (=day or now); H, *yéoukoulé, tçélar-oua;* Fi, *ăn'ŏquăl.*

2. **Light.** Sk, *kja͡u·jeskwa:l;* Bo, *eskálláluk.*

3. **Morning.** Fi, *ŭsh'quăl,*[13] *ilquălĕf;* H, *ouchkouali, alikolif;* Bo, *áls-cuálúf* (=tomorrow morning).

4. **Fine weather.** Sk, *kš'āš';*[14] Bo, *ktásck* (=it has stopped raining); G, *quesepgarre* (=il fait beau temps).

5. **Land.** Sk, *ti, ui·š'*[15] (=mountain); Bo, *uésc, uísc, uósquar* or *iácu-sciór* (=field); H, *çémptçil, payan-bi* (=earth); Fi, *champth, bar'be* (=earth); G, *argacart* (=mountain); Bo, *árcacar* or *scár-rek-scár* (=mountain); G, *alquet* (or *alquel?*),[16] *chalcayo* (="prairies").

6. **Island.** Bo, *ál-licáre;* Sk, *a·liš'ka:rrR.*

7. **Sand.** H, *paountil;*[17] Sk, *afa͡u·lš'a;* G, *akaly;* Bo, *kiápciácl.*[18]

8. **Shore, seashore.** H, *ouanikh, ouénouk;*[19] Fi, *wăn'nŭc;* Bo, *kiópceol-cáldé.*

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[1] Many words referring to limbs or parts thereof in H and Fi and one word in Sk end in *-bi, -be, -bed, -ba.* Cf. 12, 14–17, 21, 23. This may perhaps be the same as the syllable or stem *per-, pe-, pa-,* which occurs in 12, Bo, Be; 16, Bo, Be; 22, Bo. One is also reminded of the Yahgan dual ending *-paï* or *-pei* (Hyades, *q*, 322).

[2] *Yaca, yuca, accal, tacul, toqui* (*m*), *tçikouli, s̄kulla,* etc., occur in many words for arm, hand, and parts thereof; also for ankle. Cf. 12–17, 19, 23.

Perhaps a misprint for *tolkarjk.*

[4] Cf. 18, Bo; also 16, Fi, *ŭf shĕ+ba.*

[5] Yahgan for thumb is *ouchkakin* (Hyades, *q*, 290), *ushkugin* (Bridges, *p*, 56), *usca-ghin* (Bove).

[6] Perhaps the same as *je(š)kl* in 19, Sk. Cf., however, Yahgan for fist, *hascul* (Bridges, *p*, 56), *askal* (Hyades, *q*, 266); Eizaguirre has *yaschu* (=fingers).

[7] *Cut, cat,* occurs in many words for leg and parts thereof. Cf. 20–22, 24.

[8] *-cherbou-*: cf. *-sciòbe* in 21, Bo.

[9] Yahgan for knee is *toulapour* (Hyades, *q*, 291), *tu-lapurr* (Bove). Latin *de* or *ex*, Span. *desde*, is expressed in Yahgan by adding *-lum* or *-ndâulum* (Spegazzini *c*, 140; cf. also, ibid., 138 and Hyades, *q*, 316), final *m* being often barely audible (Hyades, *q*, 217).

[10] Tehuelche for shoe or moccasin is *hchoker* (Lehmann-Nitsche, *d*, 260, quoting Cárlos Ameghino), *chŏcă* (Fitz-Roy, *a*), *chokr* (Beauvoir, *b*, 184), *tsocr* (Schmid, in *Actas XVII° Congr. internac. de Americanistas*, 1910, Buenos Aires, 1912, Apéndice, p. 25).

[11] Probably means toe (=finger) instead of foot. Cf. 17, Fe, Sk, G.

[12] Cf. somewhat similar suffix in 23, Bo.

[13] Cf. *esk(w)al* in 2, Sk, Bo; also in 3.

[14] Cf. 1, Bo.

[15] Yahgan for earth is *tün* (Bove), *tun* (Th. Bridges, *k*, 235), *tan* (Hyades, *q*, 266); and for land is *o'shĕ* (Fitz-Roy), *ouçi* (Hyades, *q*, 267), *usi* (Th. Bridges, *k*, 235), *usi* (Bove), *uhsi* (=earth, Platzmann), *use* (=field, Noguera), *uisiro* (Eizaguirre). The resemblance may be only accidental.

[16] Cf. 6.

[17] Yahgan for sand is *bandal* or *baudal* (Bove), *pŭntel* (Fitz-Roy).

[18] Cf. 10, Sk, Bo; 8, Bo.

[19] Yahgan for shore is *hanna* or *hanua* (Bove).

9. **Sea.** Sk, *čĕā·pl;* Bo, *ciâpl;* Fi, *chah’bŭcl, chah’bŭel;* H, *choun-bil;* G, *chapte* or *chaple*?).

10. **Stone.** H, *lilé, koufkété-aou;* Fi, *căth’ŏw, kĕhtla’ŏ;* Sk, *kje·tš’lau, ke·pči:kl* (=rock); Bo, *kép-scéps* (=gravel), *chiél-lá, ciél-lá, yár, chéiláo* or *chéislá* (=large stone); Co, *kosil* (=flint), *kesaoux* (=stone ax); G, *chardol.*

11. **Sky.** Bo, *árca;* Sk, *arrx‘;* Fi, *ăc’cŭbă;* H, *ekou-oué;* G, *arcayta.*[1]

12. **Cloud.** Bo, *árcaiéta, árcaitá;* Li, *arkayeta;* G, *ayel* (=clouds or vapors); H, *yéléoka;* Fi, *tŭl’lu.*

13. **Sun.** H, *leum;*[2] Fi, *lŭm;* Sk, *arrx-ā·luk;*[3] Bo, *arelók, árreluk;*[4] Be, *arelok;* G, *arlocq.*

14. **Sunrise.** Fi, *ahlăcŭr’rĭc;*[5] H, *elékouraïk, kiéndak.*

15. **Sunshine.** Fi, *lŭm alkă;*[6] H, *leum éléké.*

16. **Moon.** H, *koun-hék, haou-ko;*[7] Fi, *cŏn’ăk’ho, cuunequă;* Sk, *i·rkapiš’-ā·luk;*[8] Be, *yekapesalok;* Bo, *iácapesciálop, iácabésnáluc, iácapeciàla;* G, *yacabedcharlocq;* Duclos-Guyot, *sercon.*

17. **White.** Bo, *iákápec-kár;* Fi, *ăkĭf’ca;* H, *ekaïf-ké;* Sk, *iš’kapiš’* (*kwarrR*).

18. **Star.** H, *kounn’-ach;* Fi, *quo’unăsh, cŏnăsh’;* G, *collache;* Sk, *k·ollaš’;* Bo, *cól-lásc, colás* (=large star), *cólavásc* (=it is night), *páp-párísc.*[9]

19. **Go to bed.** Sk, *päp;* Bo, *pâp;* G, *icchelor.*[10]

20. **Bed.** Sk, *päpĕtɹa·l;* Bo, *páp-deár.*

21. **Sleep.** Ir, *kolla;*[11] H, *eyakououil;* Fi, *kay’kĕol, khăk’hŏn;* Sk, *či·rks’ta, či·rš’stakwarrR* (=asleep); Be, *cheeksta;* Bo, *ciéksda, ciégsda, ciêgsdak, ciégdak, tâffledia;* G, *torpelan.*

22. **Night.** Bo, *ác-kiói, ác-kióler, ákioi* (=it is night); Be, *akiowen;* G, *aloouy;* H, *aï-oulapou, aï-oulébi, oukakouche;* Fi, *yul’lŭpre, yŏw’lĕbă;* Sk, *kš’lī·pi’š’:* (=dark).

23. **Black.** Fi, *fcal;* Sk, *pa·l* (*kwarrR*); H, *tafhka-aouandçi;* Bo, *tir-rekár, yákár* (=black face), *iácárásláb* (=raven), *iácátestá·* (=at night), *yácar* or *ákiói-al légdé* (=to grow dark); *yăccy̆-ma* (Fitz-Roy’s “Chono” word for evil spirit, a giant *black* man).

24. **Water.** Se, *auwa;* G, *arret;* Co, *nupp;* H, *chaoach;* Fi, *chau’ăsh;* Sk, *aki·čakwarrR;* Be, *akschokuar;* Bo, *ácciaquár;* Cy, *kitchikouar;* Ir, *chafilar.*

25. **Rain.** Cy, *okhtchikouar;*[12] G, *detchacoüal, tcauchelart* (or *teauchelart*?); Ir, *apere;* Sk, *ö·ppera:š’;* Fi, *ăb’quăhsh, căp’pŏcăhsh;* Bo, *kápkásc;* H, *kaïf-kéch, choumbélpélé, ouaïakal.*

26. **Thunder.** H, *kiéyayah;* Fi, *cayru’;* Bo, *tácál;* G, *tacal.*

27. **Wind.** H, *ourouch-kèch;* Fi, *hŭr’rŭquash;* Sk, *a·rrkaš’la:rrR* (=storm?), *a·ketl;* Bo, *ácátel, ácate;* G, *alache;* Li, *lefeskar.*[13]

28. **Snow.** Sk, *a·ka:be:*[14] (=also winter), *aka·pš’ti* (=hoar frost); Bo, *ácapé, káká* (=to snow); G, *ledchebeche;* H, *ech-ou;* Fi, *ăs’hŏ;* Ir, *soyer.*

29. **Ice.** G, *alabec;* Sk, *ökia·rš’li;* Fi, *ătkhur’skă;* H, *al-koulké, ayé-atil.*

30. **Fire.** H, *atélakoyou, tétélé;* Fi, *tĕt’tal;* G, *stetel* (=flame); Sk, *š’ta·tka:l, i:kš’tā·t*[15] (=match); Co, *iuksthaads* (=iron-

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[1] Cf. 12, Bo, Li.

[2] Yahgan for sun is *leum* (Hyades, *q*, 269), *lum* (Bove), *lum* (Bridges, *p*, 78), *löm* (Platzmann), *lám* (Eizaguirre, Noguera), *lŭm* (Fitz-Roy).

[3] *Arrx*=sky. Cf. 11.

[4] *-ā·luk, -elok.* Cf: 2, Bo; 14–15; 16, Sk, Be, Bo.

[5] Perhaps metathesis for *urric-ahlac, ouraik-elek, arrx-ā·luk.*

[6] Cf. note 2, above.

[7] Yahgan for moon is *hannooca* (Bridges, *p*, 77), *hännuhkä* (Platzmann), *januka* (Noguera), *anoka* (Hyades, *q*, 268), *hannuia, hannuca,* or *hunnica* (Bove), *ănŏcŏ* or *hăn’nŭkă* (Fitz-Roy), *anuhayaco* (Eizaguirre).

[8] Cf. 17 and note 4, above.

[9] Cf. 19, 20.

[10] Cf. 22, Bo. See, however, note 11, infra.

[11] This and the three following words may be related to *col-*, star, just as 19 and 20 are to 18, Bo. Cf., however, *kay’keol* and *khăk’hŏn* with *ác-kióler* and *akiowen* in 22, Bo, Be. Yahgan for sleep is *aka* or *akalou* (Hyades, *q*, 294), *a-calu* or *a-culu* (Bove), *kökahlihätä* (=she sleeps, Platzmann).

[12] This and perhaps the two following words are apparently related to 24, Sk. *Chafilar* (24, Ir) may be *čiapl+arret.*

[13] Perhaps an error, as Sr. Lista gives this same word for mouth.

[14] Possibly related to the word for white.

[15] Cf. *i:kš’tā·t* with *iskdat* (Bo)=fungus, which is used as tinder.

stone); Bo, *iéksedásc* (=spark), *ixichestól* (=roasted), *áiesc* (=burnt-out coals); Ir, *yiaskka* (=cigar), *offchar;*[1] Lu, *wayach-kwa;* Fe (and Sk), *tcharkouç;* Li, *charcuish;* Bo, *ciárcus, ciárquásc, ciárcuésc* (=burning coal), *olacar* (=stove),[2] *o-léi* (=to light the fire); G, *ollay.*

31. **Hot.** Sk, *a·pö:ll;* Bo, *ápel* (=heat); G, *appel* (=il fait chaud), *obilla* (=to burn); H, *oukoulé, kitkaïka;* Fi, *kĕt'khĭk.*

32. **Smoke.** H, *til-laïks;* Fi, *tĕl'lĭcks, tĕlk'hăsh;* Bo, *télks;* G, *telqueche.*

Group V

1. **One.** H, *takouaïdô;* Fi, *tŏw'quĭdŏw;* Bo, *tácu-tácu;*[3] Fe, *dakadouk;* Sk, *da·kuduk, ta·kso;* Si, *hualac.*

2. **Two.** H, *tilka-aou;* Fi, *tĕl'keŏw;* Bo, *tilkaaon;* Sk, *u·kl(k);* Si, *arrec.*

3. **Three.** Bo, *uóchels-a-tol;* Sk, *uklk-attauklk, ta͡u·kl(k);* H, *kouf-ir;* Fi, *cup'ĕb;* Si, *kugualec.*

4. **Four.** Bo, *uókels-a-tél-mokels;* Sk, *a·kja:i* (=many); H, *aïtétététélé;* Fi, *ĭn'ădăbă;* Si, *tushicarcagüe.*

5. **Five.** Bo, *tácu-tácu;* Si, *ıugualec;* H, *koupachpé.*[4]

6. **North.** Sk, *ja·kurlār R;*[5] Bo, *aciúculái*[6] (=north wind); Fi, *ya'ŏw;* H, *ouayé-hô, oufa-hir.*

7. **West.** Sk, *a·čikulail;* Bo, *ciétár*[7] (=west wind); Fi, *ŭthquăldăl';* H, *oukal-dèl, oupé-ouche.*

8. **South.** Sk, *š'i·ptɹe:š'li;* Bo, *cépcacé* (=south wind); Fi, *ŭc'cŏay;* H, *oukou-éoï.*

9. **East.** Sk, *čī·kerR;* Bo, *luicheralár* (=east wind); Fi, *yul'ăbă;* H, *youl-ébé.*

Group VI

1. **Boat, canoe.** (*a*) Sk, *a·tš'li* (=Yahgan canoe); Spegazzini, *ajli* (Spanish *j*); Fi, *ăth'lĕ;* H, *etét-li, ouachetçi.*[8] (*b*) Sk, *a·sxā:r* or *wa·jeku* (=steamer), *je·kukltai* (=dugout); Fe, *ouayékharh';* Co, *ayoux;* Sk, *kiā·lu* (=West Patagonian canoe). (*c*) Sk, *čä·rru* (=lifeboat); Bo, *peller* (="barca"), *scérur ácqui* (="barca grande"); G, *cher-;* Macdouall, *sheroo;* King, *shērrōo* or *sherroo* (=canoe, vessel, ship's boat); Ir, *seró* (=canoe), *imassi* (=ship); Co, *sherroux* (=ship's boat); Duclos-Guyot, *shorou;* Meriais, *chérou* (=canoe).

2. **Vessel.** Fi, *a'un;*[8] H, *e'loun, el'lé.*

3. **Basket.** Sk, *tā·ju;*[9] Bo, *táio;* G, *daye;* Co, *dawyer* (=plaited basket); Ir, *tallo;* Fe, *talia;* Sk, *ča͡u·klɹa:l* (=bucket); Bo, *scióracál* (="borsa"); Ir, *chokarkau* (=bottle or "recipiente"); Co, *kushki* (=bottle); Bo, *cósc-kéi* (=bottle), *cásc-chéi* (=glass); H, *kouch, kouf-kéhi;* Fi, *kă'ĕkhu, kha'ĭŏ;* Co, *cheebass* (=netted basket).

4. **Arrow.** Fi, *an'năquă;* H, *e-nokoué, ti-ékoun;* Bo, *tékl* (=arrow point), *árce, árscel,*[10] *érkscé;* Sk, *a·rxkje:l;* Si, *arca;* Se, *dreso;* Ir, *kanakene.*[11]

5. **Quiver.** Sk, *a·rxkje:l-kwarrR;* Bo, *árscilcuál.*

6. **Bow.** H, *kirik-kéné, yourél;* Fi, *kĕrĕc-căna;* Bo, *kiérácálá, ghérrácalak, chérákalá;* Si, *schialla, kioshalaska* (=string).

7. **Stick.** Fe, *kat;* G, *carre;*[12] Bo, *cár* or *yár* (=stake); Fi, *aĭre* (=spear handle); H, *héaïr-hi* (=spear handle); Sk, *kārR* (=handle), *kā·rksku:liš'* (=club).

8. **Spear, harpoon.** H, *oué-léé, aïlké, haï-achké;* Fi, *ĭhlcă, fĭshcă;* Sk, *iš'lkārR* (=bilaterally barbed), *ā·leju* (=unilaterally barbed, small); Bo, *álegu* or *áfdacór* (=large harpoon); Cy, *ioftokçkarh;*[13] Sk, *tö·ldä:rR* (=with sawtooth shank), *i·rš'kč'il* (=with large unilateral barb); G, *irquebal;* Bo, *ianisc* (=small harpoon), *pércla* (=with glass shank); Co, *uäakutsh* (=for seals), *kip-thatharsh* (=for fish).

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[1] Yahgan for wood is *ăh'schĭf*, according to FitzRoy; for fireplace is *uf* (Bridges, *p*, 56), *aff* (Hyades, *q*, 304).

[2] *Ola*+*car*=burning or heating+thing.

[3] Bo gives same word for five.

[4] Cf. Yahgan, *cu-pasc-pa* (=five, Bove), *cupashpa* (=little finger, Bridges, *p*, 78).

[5] Cf. 9, Bo.

[6] Cf. 7, Sk.

[7] Cf. 9, Sk.

[8] Yahgan for boat is *anan* or *auan* (Bove), *aña* (Eizaguirre), *anèn* (Hyades, *q*, 304), *aunan* or *watch-an-nan* (Despard, *b*, 679, 718).

[9] Cf. Yahgan for basket, *taouala* (=of fine mesh, Hyades, *q*, 303), *tauhala* (Noguera), *taualla* (Bove), *tauala* (Lovisato, *a*, *b*), and also Ona for same, *tawal* (Lista, *b*, 144), *tóuel* (Segers), *thay, thai* (=also rush material, Beauvoir, *b*, 119, 65), *táyu* (=rush material for baskets, Gallardo, 264). This resemblance running through the three languages probably denotes cultural borrowing.

[10] Sr. Lista has *arekechul* as Tehuelche for arrow (La Patagonia austral, Buenos Aires, 1879, p. 85).

[11] Perhaps an error for bow.

[12] This is apparently an element in 9, Bo; 8, H, Fi, Sk, Bo, Cy.

[13] Cf. preceding word and 9, Cy, Ir, Sk, Bo.

9. **Knife.** Fi, *ăfta'rĕ, ăftăĭ'lă;* H, *iflstilh, alioual;* Cy, *afteuçki;* Ir, *affstash;* Sk, *aftā·sɹĕ;* Bo, *tarúsca* (=native knife), *autásche* (=iron knife), *káraustáscár* (=saw), *karésche* (=ax); G, *astachelay* (=anything of iron), *illay* (=to cut), *islart.*

Group VII

1. **Guanaco.** Sk, *lai·xe:l;* Bo, *lâiel, láscel, laýl;* G, *lajxcart* (=to hunt); van Noort, *cassoni;* Fi, *harmaŭr;*[1] H, *berkaham, hamalafkar.*

2. **Deer.** G, *jgel, becjoul* (=antlers); Co, *halchun.*

3. **Otter.** Sk, *lā·eltl* (=large otter), *ta·šušči:š* (=small otter); Bo, *lôl-let, lált;* Fe, *laldalkaous;* Co, *lalthers* (=otter skin); G, *laten, aauchelap;* H, *ayapouh;*[2] Fi, *hĭăp'pŏ.*

4. **Puma.** Sk, *ča·u:l;* Bo, *ciáuel.*

5. **Mouse.** Sk, *a·tɹelöp;* G, *ascaiselap;* Co, *akraceps.*

6. **Domestic cat.** Sk, *i·rritu;* Bo, *iéretú.*

7. **Horse.** Sk, *a͡u·reli;* Fe, *orel'lé;* Bo, *oreli, orasi, orásle, orasleuálek* (=mare), *têr, têr-caffiyacápakiár* (=white horse).[3]

8. **Sheep.** Sk, *wo·ši;* Bo, *uósci uóscé* (=lamb), *uscí, chiáui.*

9. **Dog.** Fe, *chalki;* Fi, *shil'ŏkĕ;* H, *tçikoul-élé;* Sk, *č(i)a·lki*; Bo, *scialki, ciálchi, siálke;* G, *chalqui;* Li, *shalki;* Co, *sharkiss;* Si, *peshu;* Duclos-Guyot, *ouchi;* Ir, *korro.*[4]

10. **Whale.** Sk, *a·päla;* Bo, *ápela, ápla;* G, *aballa.*

11. **Fur seal.** Sk, *ārR;*[5] Fe, *harkaçi;* Co, *harkusis-hushkei* (=seal skin), *arougsis* (=seal skull); Bo, *kióro, kioru;* Se, *vergebrusch;* H, *tou-pi,*[6] *yaïlou;* Bo, *iél-lo* (=hide or skin, in general); Fi, *ăf'fĕilŏ, ăf'ăĭlŏ.*

12. **Sealion.** Sk, *ā·lɹel-ārR;* H, *ouk-houl* (=a gown of skin); Fi, *uckwul* (=gown); Bo, *al-kiáls, álacásc;* G, *alcouetcheta* (="loup marin").

13. **Skin, hide.** Bo, *-cósc,*[7] *-casc;* Fe, *-kaous, -kaçi;* Ir, *yaháks* (=mantle, covering); Sk, *kauš', o·pöɹxa:l* (=probably guanaco skin); Fe, *oppeurkilh* (=guanaco skin); Fi, *ŭc'cŏlaўk;* H, *koukoulé-aïkoun, apoulé.*[8]

14. **Mantle.** Sk, *ā·llak;*[9] G, *alac* (=skin of loup marin); Sk, *a·či:ču* (=clothes);[10] Ir, *chincho* (=pea-jacket); Bo, *ácéciú* (=shirt), *ciéciauá ciacár* (=to dress).

15. **Bird.** Fe, *kikik-;* Cy, *kieçka;* Bo, *késka, chéisc-cár, tácuátucu* (="nuco," a bird); Fi, *tŏw'quă* (=little bird); H, *taou-koul* (=little bird).

16. **Swallow.** Bo, *quál quá ciá;* G, *colo-cotcha.*

17. **Gull.** Bo, *kán, káiél;* G, *cailx.*

18. **Bustard.** Bo, *uációl;* G, *auatchol, islap.*[11]

19. **Duck.** H, *ayékil-élé, chaoulé oufkou-lélé, ouin*[12] (=duckling); Fi, *wĕn* (=duckling), *ye'keĭp;* Sk, *ka·īp* (=steamer duck); Bo, *zrálitra, iérárésláp;* G, *irarchaux,*[13] *atargy* (=duck "qui ne vole pas"); Co, *karawus-poug* (=steamer duck).

20. **Penguin.** G, *carasse;* van Noort, *compogre.*

21. **Hummingbird.** H, *emou-oué;* Fi, *ămŏwa'ră.*

22. **Vulture.** H, *ekour-héghé;* Fi, *ăhcŭr'-rĭgă.*

23. **Owl.** H, *aïchahla* (=horned), *tafkaïl-hé;* *Fi, tilkibbŏl, shĭp'ĭshĭ* (=horned); Bo, *olapsc.*

24. **Goose.** Bo, *cár-cár-cár;* Sk, *ate·č'lap*[14] (=kelp goose, male), *ăā·rip* (=ditto, female).

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[1] Yahgan for guanaco is *ama-ara* (Noguera), *amara, mayaka* (Hyades, *q*, 285), *am-mara* (Bove), *amoera* (Spegazzini, *c*, 137), *amárha* (Eizaguirre), *amura* (Furlong, *g*, 3.)

[2] Yahgan for otter is *aiapuk* (Bridges, *h*, 207), *aja-puch* or *aia-puck* (Bove), *ayapou, yapou* (Hyades, *q*, 285), *yappo* (Despard, *b*, 717).

[3] *Tercaf+yacapak*=hair+white.

[4] Cf. 11, Bo. Possibly a mistake for seal or sea lion. Sr. Iriarte's list was gathered by signs and perhaps he "barked."

[5] Cf. 11, Co; 13, Fi, H.

[6] Yahgan for seal is *dŭp'pă* (Fitz-Roy), *tapara* (Hyades, *q*, 285), *taparha* (Eizaguirre). Cf. *taa-pa* (=coat, Despard, *b*, 718).

[7] Occurs in compounds. Cf. 11, Fe, Co; 12, Bo.

[8] Yahgan for skin is *ăppŭllă* (Fitz-Roy), *apala* (Hyades, *q*, 269). Cf. 11, Fi.

[9] Perhaps occurs in 13, Fi, H.

[10] Cf. *-etcheta* in 12, G.

[11] Cf.: 19, Bo; 23, Bo; 24, Sk. The same ending occurs in Bo, *iéscolép* (=black thrush). It may be a generic term.

[12] Yahgan for duck is *ui-jin* or *ui-ün* (Bove), *ouièn, ouyèn, ouayé* (Hyades, *q*, 285, 266).

[13] Possibly the same as *iéráré-* in the preceding word. The natives no doubt have special names for each of the various kinds of ducks and other larger birds.

[14] See preceding note and note 11, above.

25. **Chicken.** Se, *kokokok;* Bo, *o-ô-ô.*

26. **Fish.** Sk, *ja͡u·čerR* (=robalo); Fe, *yaoutchilh;* Ir, *yanchen;* Li, *yaulchel;* Bo, *iauciél, yáulce, iákel, terkctáye, sciékuér* (="pescagione"), *sciác-sdár* (=tunny); Sk, *ki·rksta* (=to fish); Fi, *kĕr'rĭkstă* (=to fish), *ăp'pŭbĭn,*[1] *appŭffĭn;* H, *epoun baïn, yéé-rha,*[2] *tafkarh*[3] or *taflarkarh* (=to fish); G, *orolle;* Co, *areous-areersh.*

27. **Mussel.** Sk, *ka·puk;* Bo, *cápok;* Ir, *kapó* (="choros"); G, *aptechouée;* Co, *chaloux.*[4]

28. **Photinula** (a small mollusk). Sk, *kei·-gjo:l* (=also necklace of same); Bo, *kéi-cól* (=necklace of shells); Fi, *ca'ĕcŏl* (=beads); H, *i-koul* (=beads).

29. **Shell.** H, *tiachc-ouaïǹ;*[5] Bo, *tól-la-jéku;* G, *sychaux;* Fi, *car'nĭsh.*

30. **Beads** (necklace). H, *ckoun-ach* (=necklace of bones); Co, *heskouna.*

31. **Sea urchin.** Co, *kawotchi, karabous-kalpers* (=crab); G, *cabesche;*[6] Sk, *ta͡u:xlā·ri;*[7] Ir, *affshte.*

Group VIII

1. **Tree.** Fi, *c'ărŭckă,*[8] *kăfs'hă;* H, *kéf-hé, y-ékokoul;* Sk, *xa·rltökl;* Bo, *carh ocnál, cár.*

2. **Winter's bark.** Sk, *šā·la-kwarrR;* Sp, *shalakuâhr, shâahlku.*

3. **Libocedrus tetragona.** Sk, *lapā·jekt;* Sp, *lapaiékhl;* G, *paicle* (=pine).

4. **Fagus antarctica.** Sp, *täshka;* G, *tech-elart* (=tree).

5. **Notofagus betuloides.** Sk, *a·llkol;* Sp, *alcoól;* Bo, *ál-chiól, álcol* (=bough); G, *argol* (=leaf).

6. **Berberis empetrifolia.** Sk, *kjä·rrR;* Sp, *kiérr;* G, *cars* (=forest); Bo, *cár* (=tree).

7. **Berberis ilicifolia.** Sk, *čiš';* Bo, *chéesc* (=bush).

8. **Wood.** H, *achif;* Fi, *ŭf'shă;* Sk, *če·a:la:;* Ir, *sillana;* Si, *anchufalla.*

9. **Firewood.** Cy, *kokas;* Sk, *ɹa·ɹā:s;* Bo, *cácasc;* G, *cacache:* Li, *kekásh.*

10. **Baccharis patagonica.** Sk, *kī·lpel;* Sp, *kiilpel* (=Escallonia serrata).

11. **Empetrum rubrum.** Sk, *pī·lekutl* (=also Tepualia stipularis); G, *pilcoüet* (="brande," heather).

12. **Scirpus cernuus.** Sk, *š'a·kā:lf;* Sp, *shakâlu* (=Poa scaberula); G, *chaca-lam* (="l'herbe," grass); Bo, *scékálef* (="erba"), *skákálof* (=hay), *ciacála s-céss* (=grass for a bed); H, *çakalif* (=grass).

13. **Myginda disticha.** Sp, *tciis;* Bo, *scéss* or *ifá* (=dry grass).

14. **Peat moss.** Sk, *č·äöpl;* G, *de chafiche* (=moss); Bo, *ciâpl* (=high grass).

15. **Gleichenia quadripartita.** Sk, *a·kiu:tɹel;* H, *haïté-kil* (=grass).

16. **Celery.** Sk, *kö·lš'ča͡u;* H, *kélé* (=grass); Fi, *khall* (=grass).

17. **Philesia magellanica.** Sk, *ko·lla-ko·lla;* Ir, *kalakala* (=flower).

18. **Flower.** H, *aïksté;* Fi, *yĭk'stă;* Sk, *i·ksta:xl;* Bo, *iksedál, ijctál.*

19. **Macrocystis pyrifera.** Sk, *kičā·pökš';* G, *quetchabache* (="varech," sea-wrack); H, *ouch-ché.*[9]

20. **Marsippospermum grandiflorum.** Sk, *či·pā:š', je·kkabi:sse;* Sp, *iékkabésse;* Se, *jakapasch* (="Binsen," rushes); Bo, *ienakasc* (="alga").

Group IX

1. **I.** Bo, *ciéls, ciéls-cuá;* Sk, *čix(l);* G, *qui ouchy.*

2. **Thou.** Bo, *ciáuls, ciáuls quá;* G, *chausse;* Sk, *ta͡u·x(l).*

3. **He.** Bo, *chiál, kiáls-cuà;* G, *haulle;* Sk, *čaux(l).*

4. **My.** Bo, *ásc, áisc;* G, *hasche;* Sk, *höš.*

5. **Angry.** Bo, *át-ásc;* G, *atache;* Sk, *a·tta:š'.*

6. **Bad.** Fe, *tchabakta, tchalabarh'* (=ugly); Bo, *cêiláper* (=ugly), *cêisláber;* Sk, *češ'lā·börrR, či·lögdl* (=evil); Bo, *cilácdar* (=ugly).

7. **Button.** Sk, *če·pe:rrR;* Fe, *çiparh'.*

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[1] Yahgan for fish is *apour* (Hyades, *q*, 287).

[2] Perhaps the same as *iakɛl*, above.

[3] Yahgan for kelp fishing line is *aouch tafkoa* (Hyades, *q*, 303, aouch=kelp). Cf. *tupar* (=to fish, Bove).

[4] The natives have different names for the various mollusks. Dr. Skottsberg gives several.

[5] Yahgan for the Venus and Mactra mollusks is *tachaouïn* or *tachaouo* (Hyades, *q*, 289), *ter-sho-in* (=limpet shell, Despard, *b*, 718, the first word gathered by him, in 1857).

[6] Perhaps the same as *karabous-* in preceding word.

[7] Cf. 29, Bo.

[8] Yahgan for tree is *ŭrŭr'* (=also log, Th. Bridges, *p*, 54, 78), *uörurh* (Platzmann), *ua-rush* (Bove), *ouarouch* (=wood, tree trunk, Hyades, *q*, 283).

[9] Yahgan for kelp is *(h)aouch* (Hyades), *ha-usch, ha-ush, a-cich* (Bove), *howoosh, achik* (Bridges, *p*, 78).

8. **Captain.** Bo, *scéfteor* (=chief); Sk, *siu·ftiu:r;* Cy, *çouftior laïp* (=generous=captain+good).

9. **Coire.** Se, *higehige;* G, *ygre* (=“parties de l’homme”).

10. **Cold.** Sk, *kī·š’āš’;* Be, *kizás;* Wyse, *quichache*[1] (=clothes); Fi, *kĭshăsh’;* H, *kaïne-béche, tourré-ierrha;*[2] Bo, *kisók, chisácheci;* G, *ychesche* (or *yehesche?*) (=it is cold), *mehaleque* (=ditto); Meriais, *faïa* (=ditto).

11. **Come.** G, *laxcara* (=come!); Sk, *lö·ča:l;* Bo, *léciál* or *leciálk* (=will come), *cielocul* (=come!), *ciólok lô* or *cilukl tali* (=come here!); Se, *x x x* or *kakaka* (=exclamation for calling attention); H, *kakaoutéla,*[3] *akoumouan* or *yamachkoun-é*[4] (=come here); Fi, *yămăschun’ă* (=come here), *hăb’rĕluă.*

12. **Cut.** H, *kapakoléïoua;*[5] Fi, *cŭp’pă;* G, *illay;* Sk, *ajekarR.*

13. **Die.** H, *yé-kouçi* (=dead); Bo, *ác-ciol* (=he died); H, *ouaïkalénar* (=dead or die), *ouaïlakaruar;* Fi, *wĭllăcar’wŏna* (=dead or die); Cy, *alguéléra* (=dead); Bo, *ánfiásck* (=dead), *táf* (=death or die); Sk, *töff* (=dead).

14. **Dive.** Fi, *sko;* Sk, *ksɹa͡u·i;* H, *ialgouloulé.*[6]

15. **Egg.** H, *tétil-é-é;* Fi, *lĭth’le;* G, *leschelly* (=penguins’ eggs); Bo, *lésle, iórel;* Fe, *orril’;* Sk, *jo·ri(š’)l.*

16. **Fat.** Sk, *a·fɹĕ;* Bo, *áf-kái;* Fi, *ŭf’ki;* H, *ouf’kaï, toufkéne-kiou.*

17. **Go.** Sk, *āš’* (=also walk); Bo, *ásc* (=also walk), *ask* (=walk), *asch* (=goodbye); Fi, *ahsh* (=walk), *ŭs’hăe* (=go away); H, *hach* or *ker-né* (=walk), *ouchofh-hé* (=go away); Bo, *télécu* (=a walk or road), *teclecuálme* (=go far away); G, *tel* (or *tet?*) (=“va-t-en”), *loulda* (=“marche”).

18. **Good.** H, *la-laïf;* Fi, *ly’ĭp;* Fe, *laïp;* Sk, *lā·ip;* Bo, *lâyep, lâiep* (=pretty).

19. **Green.** Bo, *ár-cár, náipa* (=blue); Sk, *a·rx* (*kwarrR*) (=blue or ? green).

20. **Hut, wigwam.** Bo, *at* (=house); Sk, *āt* (=house), *ātk* (=houses); Ir, *ata;* Fi, *ăht, hŭt* (=house); G, *hasthe* (=house); Sp, *ât-jl* (Spanish *j*); H, *hioutoul* (=house) or *aftéli-téla.*

21. **Large.** H, *haoufkil, haou-kouil* (=full moon); Fi, *ŏw’quĕl* (=also full moon); Fe, *oukéulkh* (=much); Sk, *a·kwi:l, a·kwa:* (=always), *a·kja:i* or *a·kj:a͡uš’* (=many); G, *agonil* (=it is large); Bo, *ák-chél, ác-qui, ác-chiái* (=much or many), *ác-kiái* (=more), *ák-cui* (=entire); Ir, *pinna* (=much or more).

22. **Love.** Bo, *áto-kalái;* Sk, *a·tɹala:(š’).*

23. **Meat.** Sk, *(h)īpr;*[7] Bo, *yépper;* Se, *jepper;* Fe, *yépeurh’;* Lu, *vo’perchl-kwa.*

24. **Milk.** Sk, *ău·rxkʿ* (=also breast); Fe, *ourkh’* (=breasts); G, *ourque* (=teat).

25. **Nest.** Sk, *kiut-kiut;* Bo, *éi, chéisc-ca-éi* (=bird’s nest).

26. **No.** H, *pal’toukoul;* Fi, *quĭt’tuk;* Fe, *ytkoula;* Sk, *ta·xli, ta·š’liku:lla* (=I do not wish to); G, *tachely* (=enough, no more); Fe, *m’na* (=nothing); Ir, *mayo* (=little, less), *layamma* (=enough, no more); Bo, *chiâtai, chiâta* (=nothing, no); G, *cadays* (=no, “nennï”), *quiepy* (=“rien du tout”), *quieb* (=“il ne vaut pas rien”); Sk, *kjip* (=nothing), *kjap* (=nothing—heard at Port Grappler); King, *cab, cab;* Topinard, *quieppa* (=meat?).

27. **Oar.** G, *oyeque*[8] (=to row); H, *ouaïaïk* (=man’s oar), *ourhou* (=woman’s oar); Fe, *al’lio;* Fi, *wŏr’rĭc* (=woman’s), *wy’ĭc* (=man’s); H, *kouné* (=man’s); G, *couaigny;* Bo, *lépocár;* Sk, *le·pokwa:rrR.*

28. **Pain.** Sk, *kjö·fte:l;* Bo, *kiúfdál-l* (=to pain), *kiúftelk* (=great pain); G, *affle* (=“j’ai mal”); Fi, *ahf;* H, *hiff, oumméyé.*

29. **Paper.** Sk, *ta·jlkatlka;* Cy, *taïkalka.*

30. **Porpoise.** H, *chou-ouénaki;*[9] Fi, *shŏwăn’nĭkĕ;* Bo, *sciácdar, ciásda;* G, *callona.*

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[1] The natives were probably asking for “clothes” by saying “we are cold.”

[2] Yahgan for cold is *taruri, tarourou* (Hyades, *q*, 266), *tör-ri* (Bove), *tharri* (Eizaguirre), *teri* (Noguera).

[3] *-tela:* cf. *tali* just above in Bo. The Yahgan for come here is *akoum* (Hyades, *q*, 266), *a-cum* (Bove), *acuman-caia* (Eizaguirre).

[4] This sounds suspiciously like the Yahgan *yamasckuna* (=be generous!), the usual greeting formerly of the Yahgan to the European visitor.

[5] Cf. *kapok, kapo* (=mussel shell). The native knife was made usually with a shell blade. Dr. Hyades (*q*, 309) gives *akoupou* as Yahgan for cut.

[6] Yahgan for dive is *gouléni* (Hyades, *q*, 296, 266), *gul-heni* (Bove).

[7] A Tehuelche-Ona word (Lehmann-Nitsche, *d*, 249). The Alacaluf probably acquired it in bartering for meat with their land neighbors.

[8] Perhaps related to *ouayékharh’* (=canoe).

[9] Yahgan for porpoise is *çaouianoukh* (Hyades *q*, 268), *sa-ui-jannuck* or *sa-ui-iaumuck* (Bove).

31. **Rainbow.** G, *accadé;* Sk, *akja·ielökl;* Bo, *áccailík, ác-kioribék;* Ir, *kebnai.*

32. **Red.** Sk, *kīru (-kwarrR)*; Bo, *chiéoquár.*

33. **Run.** Fi, *ahl* (=rush); H, *ali;* Bo, *álesc* (=also run away!); Sk, *a·lāš';* G, *al chy* (="je vais partir"), *alcherba* (="allons-nous-en"), *yet lepert* [1] (="il s'en va").

34. **Sick, ill.** H, *koumé* or *yaouil* (=sickness); Fi, *yaŭ'hŏl* (=sickness); Bo, *ál-ler, ál-lel, ál-lelk, halen;* Be, *halen;* Sk, *ā·löl(k)*; Fe, *alilki;* Cy, *deuf.*[2]

35. **Sit.** H, *choukouil;* Fi, *shŭckă;* Sk, *ši·ɹārR;* Bo, *sciácárk;* G, *houche.*

36. **Swim.** H, *kél-i, laïmp-aï;* Fi, *lĭm'pi;* Sk, *ö·llpai:l.*

37. **Thin.** Sk, *ā·jip;* Bo, *á-iepl.*

38. **To-morrow.** Bo, *térruáiacilì, ál cuálak;* G, *calas.*

39. **Urinate.** Sk, *skarrš';* G, *quesquer.*

40. **Yes.** G, *couam* (or *couans?* or *couaus?*), *allous* (="oui certes"); Sk, *ai·lo:;* Fe, *aïlaou;* H, *alélkal-ou, tach,*[3] *ou ou;*[4] Fi, *o'o;* Bo, *áa.*

41. **Yesterday.** G, *arca;* Bo, *álcualák.*

42. **Thing, etc.** "The suffix *kwarrR* is very common and seems to designate a condition or a quality possessed by something: hence *či·rk'sta,* to sleep, *či·rk's'ta-kwarrR,* being asleep. The color names also end in *kwarrR;* a thing is *pa·lkwarrR,* i. e., possesses a black color. Another example is *a·rxkje:l,* arrow; *a·rxkje:lkwarrR,* quiver='the thing that holds the arrows'" (Skottsberg, *d,* 606). For examples of this suffix in Bo, H, Fi, see the words above for white, red, black, and green; the final *r* or *rrR* is elided, as frequently, in H, Fi. Cf. also Group IV, 30, Bo, *olacar.*

DISCUSSION OF GLOSSARY

Owing to the paucity of available material and the total lack of grammatical data, much in the foregoing comparative study is necessarily tentative and provisional. Nevertheless, there appears to be sufficient evidence on which to base certain dependable conclusions.

The two most important lists, Bo and Sk, agree in from at least 80 to 90 per cent of the cases, so closely, in fact, that there can be no reasonable doubt that they represent the same language. The same is true of Fe. G agrees in quite the majority of cases with Bo, Sk, and Fe, as do also the shorter lists Se, Lu, Sp, Li, Cy, Be, Si, Co, and Ir, while some of the stray words from Duclos-Guyot, King, Macdouall, Meriais, and Wyse can also be identified. H and Fi closely resemble each other and in the main show manifest affinity with the other vocabularies, but on the other hand contain many words peculiar to themselves.

The 15 lists and other words therefore fall into two groups, one represented by H and Fi, the other including the remaining material. Do these two groups represent two distinct languages, or at least two distinct dialects, or does the evidence call for some other explanation?

That they represent one and the same language seems fairly, reasonably clear, for in about 60 to 70 per cent of the 115 to 120 words for which comparison is possible, there appears to be either outright identity, or else community of stem, prefix, or suffix. On the other hand the remaining differences would seem to be sufficiently accounted for by the presence of Yahgan and Ona-Tehuelche words, and by the errors, inevitable in the circumstances under which the lists were gathered.

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[1] *-lepert* may be the same as *lépper* in Bo's sentence *ciál-chi'l-cál* (=they) *jaksciórchiér lépper* (=go to the field).

[2] Cf. 13, Bo, Sk.

[3] In Yahgan the word *dăs* (Fitz-Roy) or *tas* (Hyades, *q,* 270) is used for yes, but rarely.

[4] A Yahgan word for assent is *aouaï* (Hyades, *q,* 270), *auai* (Bove), *ow-wy* (Despard, *b,* 718).

In H and Fi there is an appreciable percentage of Yahgan words, at least 10 per cent and probably considerably more. The majority of words for which the Yahgan equivalent is given in the notes to the preceding glossary are clearly of Yahgan provenance. The proximate publication of the Rev. Mr. Bridges' dictionary (Th. Bridges, *l*) will make possible a more thorough study of this point. Further traces of Yahgan influence, especially in H, are apparently discernible in the predominance of *ou* and *a* sounds, in the frequency of successions of single vowel syllables, and in the occasional endings *-ndçi*, *-ndoulou*, *-ndouloum*, all characteristic of the Yahgan tongue (Hyades, *q*, 217–218, 322, passim; Spegazzini, *c*, 138, 140).

The presence of this considerable Yahgan element in H and Fi is readily accounted for. According to Mr. Bridges (*b*, Oct. 1, 1881, 227; Feb. 2, 1874, 26; June 1, 1883, 139), Admiral Fitz-Roy's three Alacalufan informants belonged to partly Alacalufan and partly Yahgan mixed stock. They were taken in the region between Brecknock Peninsula and Christmas Sound, where there was much contact, intermarriage, and linguistic borrowing between the two peoples[1] (cf. supra, pp. 3, 7).

Dr. Hyades evidently did not have any assistance from the English missionaries in compiling his Alacalufan vocabulary, for he was under the impression that no one at the mission knew anything at all about Alacalufan (Hyades, *q*, 13). His informant, Kitamaoyoèlis Kipa, an Alacalufan woman 40 to 45 years old (Hyades, *q*, 272, 224, Table IV, no. 25), born at Kitamaoya, in western Alacalufan territory (*q*, 106), was at the time living at Orange Bay, in the heart of the Yahgan territory. She and her sister were both married to a Yahgan man. She told Dr. Hyades, it is true, that she remembered well the language of her native land, and the Yahgans at Orange Bay seemed to be convinced of the truth of her assertion, but she had been married to her Yahgan husband for many years, as they had a 13-year-old daughter (Hyades, *q*, 272, 224, 411–412, Table V, no. 36), and she had in all likelihood been living during these years among Yahgans. It is not surprising, therefore, that she should have lost to some extent the knowledge of her native tongue and should have used many Yahgan words even when speaking Alacalufan. The Fuegians apparently soon forget their native tongue, for Jemmy

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[1] Many years later Fuegia Basket, one of Admiral Fitz-Roy's natives, conversed with the Rev. Mr. Bridges in Yahgan, which she understood and spoke, although Alacalufan was her own tongue (Th. Bridges, *b*, 1874, 26; 1883, 139).

Button, after the lapse of two years, was unable to converse with his parents in his own tongue, although he understood them (Hyades, *q*, 271), while one of the native women taken in Crooked Reach in 1876 had entirely forgotten by 1883 her own language and spoke only Spanish (ibid., 278).

The Alacaluf are or were in contact with the Onas and Tehuelches throughout a large section of their territory. In recent years, moreover, the Onas and Alacaluf have been brought into close association at the Dawson Island missions. These facts explain sufficiently the minor Ona-Tehuelche element in the Bo-Sk lists, an element entirely or almost entirely absent from H and Fi. The present writer has made no exhaustive comparison, but has utilized only the more readily accessible Ona-Tehuelche material.

If we eliminate the Yahgan element from the H-Fi group and the Ona-Tehuelche element from the Bo-Sk group, the two groups are brought into much closer harmony and their differences largely accounted for. The remaining differences are probably due to the various causes to be mentioned below.

First, inaccuracies of transcription. The Alacalufan language is, as observers agree, extremely guttural, or "buccale et comme muqueuse" as Dr. Topinard put it, which makes the task of catching the sounds correctly and transcribing them an exceedingly difficult one (cf., e. g., Hyades, *q*, 12, quoting Mr. Bridges; Seitz, *a*, 185; Skottsberg, *d*, 580). A glance at the comparative glossary given above will show numerous instances where words evidently the same have been caught and transcribed very differently. Then, too, there are many individual and local differences in pronunciation and diction (Skottsberg, *d*, 605; Hyades, loc. cit.). The addition or omission of *s*, *sh*, *l*, etc., whatever be the explanation, has been noted already. We may recall, too, that the observers themselves who gathered the various vocabularies represented six or seven different European languages, and naturally have caught and transcribed the native words somewhat differently. For instance, H usually expressed by *é* what Fi expressed by *ă* or *a;* H and Fi frequently omit the final *r* where the others give it; H in several instances inserts an *f* or *m* where Fi omits it, etc. Or compare Lu and Se, both gathered from the same Hagenbeck group of natives in Europe: eye—Lu, *te'leh-kwa*, Se, *decorliqua;* teeth—Lu, *che'rik'til-kwa*, Se, *tschiligiqua;* tongue—Lu, *le'kel-kwa*, Se, *lecorqua*, *lekkersqua*, etc. The above causes largely account for many of the *minor* differences between the various vocabularies and between the two groups, H-Fi and Bo-Sk.

The *more radical* differences are probably due first of all to misunderstanding on the part of the native informants. Admiral Fitz-Roy obtained his words largely by signs, although his natives learned to speak a little English. "I found great difficulty in obtaining words, excepting names for things which could be shown to them and which they had in their own country" (Fitz-Roy, *a*, 188). Of Admiral Fitz-Roy's list of more than 200 Tekeenica words, Dr. Hyades found 50 exact, 30 more or less inexact, and 120 entirely wrong (Hyades, *q*, 262, 270). It is to be expected then that a good proportion of his Alacalufan words, too, may be wrong.

Dr. Hyades published his own Alacalufan material "sous les plus expresses réserves, et comme pierre d'attente en quelque sorte" (*q*, 279). Valuable though his longer list is, it is certainly not as dependable as his Yahgan material, upon which he bestowed much more care and labor, interrogating and reinterrogating the 120 to 130 Yahgan natives who visited Orange Bay during the expedition's 12-month sojourn, and revising the words with the assistance of the English missionaries. "Pour la langue des Alakalouf, nous allons présenter . . . la comparaison du vocabulaire de Fitz-Roy avec les mots que nous avons entendu prononcer par une femme alakalouf, vivant à la baie Orange. Nous l'avons soignée là pendant longtemps pour une arthrite du coude. Elle affirmait qu'elle se rappelait bien la langue de son pays natal, et les Fuégiens de la baie Orange paraissaient en être persuadés" (*q*, 272). His statement, coupled with the fact that he gives the Alacalufan equivalents only for those words in the main which Admiral Fitz-Roy had already published, gives one the impression that his chief concern was to obtain correct pronunciation and what few synonyms he could incidentally gather. He did not identify or revise his vocabulary with the aid of other Alacaluf, and the missionaries at the time did not give him any assistance (*q*, 13). His informant, moreover, as noted above, had in all probability been away from all her people, except her sister, for at least 13 or 14 years.

Taking into account, therefore, the circumstances under which the H and Fi lists were gathered, we are justified in assuming that they contain a considerable percentage of errors.

Bo and Be were taken under more favorable conditions. The Salesians have been in close contact with the Alacaluf for over 20 years, and most of the natives speak a little Spanish, while Father Borgatello understands a little Alacaluf and Brother Xikora, who assisted him, speaks the language fairly well, although not fluently (Cojazzi, private communication).

Dr. Skottsberg's informant, Emilia, spoke Spanish, the medium of communication, rather brokenly, but well enough for his purpose. Moreover, he took pains to verify his words through other natives. Dr. Fenton had learned his few words some years previously, probably with Spanish as the medium of communication, but apparently had not preserved a written record of them, as he dictated them to Dr. Hyades from memory (Hyades, *q*, 279). They were verified by Cyrille, a 9-year-old boy living at Punta Arenas.

Señor Lista's vocabulary was gathered from a "Guaïcaro" medicine-man, all of whose people had passed away and who was then living among the Tehuelches. Dr. Coppinger's list was gathered by signs, though he carefully verified it in part among other natives. All the other extant Alacalufan material, except perhaps G, so far as our information goes, was gathered by signs.

Under such circumstances we should naturally look for a good percentage of errors in the Bo-Sk group as well as in the H-Fi group. The most exact of the extant lists, judging from the circumstances under which they were collected and from their mutual agreement, are Bo, Be, Sk, Fe, Cy, and G. Only in the case of Bo (and G? and Be?) did the observers speak at all the natives' own language.

Some further differences between H-Fi and the other group may well be due to the presence of synonyms. The Alacalufan language is evidently, like the Yahgan, poor in abstract and rich in concrete terms (cf. Sk, Bo). The Yahgan contains many synonyms (Th. Bridges, *k*, 235–236; Hyades, *q*, 280), and so apparently does the Alacaluf (cf. Cy, Bo). Nuances of meaning are often expressed by entirely dissimilar words (cf. Sk, Bo). Certain words, too, are, it seems, of local use—Emilia knew the word *tscharkouç*, "fire," but did not use it, while she did not know either *kaoui*, "ear," or *noëlh*, "nose" (Skottsberg, *d*, 613–614).

That the above sources have actually caused many divergences in the vocabularies and many errors is further evidenced (1) by the number of cases in which the same idea is expressed by different words in each of the lists and (2) by the number of words in the lists belonging to the Sk-Bo group, especially Co, Li, Lu, Se, Si, and Ir, which bear no resemblance to any words in the other lists of this group. Dr. Coppinger's vocabulary, for instance, which manifestly represents in the main the same language as Sk, as Dr. Skottsberg recognizes (*e*, 412), differs from Sk-Bo almost as much as H and Fi do. Or compare some of the words in Lu and Se, both taken from the same troupe of natives: nose—Lu, *chlia're-kwa*, Se, *nosqua;* hand—Lu, *dero'alehl-kwa*, Se, *corocaschqua*.

Before concluding it seems necessary to say a few words regarding Dr. Skottsberg's recent theory (*a*, xxxii, 593, *d* and *e*). From a careful comparison of his own vocabulary with H, Fi, Fe, Sp, and Cy, he concluded that there is in Fuegia a fourth linguistic stock quite distinct from the Alacalufan. For this fourth stock, to which belong Fe, Cy, Sp, Co, Sk, and many words in Fi, he suggests the name "West Patagonian" (*d*, 581, 611–614; *e*, 412).

Dr. Skottsberg, however, did not utilize a great part of the available material for comparison, namely, Bo, Be, G, Si, Li, Se, Lu, and Ir, his study being based on Sk, H, Fi, Fe, Cy, Sp, and Co. He has not given due weight, moreover, to the community of element, stem, and affix between H-Fi and his own list. He has made no allowance for Yahgan and Ona-Tehuelche influence in the respective groups. Finally, he has hardly taken sufficient account of the various other sources of divergence adverted to above.

A few other considerations have a bearing on the point: (1) Emilia spoke of herself and the people met by Dr. Skottsberg as Ālukulup, and it is unlikely that she would be mistaken regarding her own tribe's name or that as Dr. Skottsberg agrees two tribes speaking different languages should have the same name. (2) Sk agrees with Sp, but Dr. Spegazzini's route barely touched the extreme eastern fringe of the territory assigned by Dr. Skottsberg to the West Patagonian canoe people, and that only en route between Punta Arenas and Beagle Channel. Capt. Bove and Dr. Lovisato met some Alacaluf at Ushuaia Mission (Hyades, *q*, 13) and it is probable that the plant and other names in Sp were obtained from these natives. (3) Sk agrees in the main with Lu and Se; but the natives exhibited in Europe by Herr Hagenbeck were, so all competent authorities agree, true Alacaluf even if perhaps with a tinge of Ona blood (Th. Bridges, *b*, 1883, 139). (4) Most important of all, Sk agrees almost perfectly with Bo; but although Father Borgatello's mission Alacaluf speak some Spanish and Father Borgatello and Brother Xikora some Alacalufan, and although in addition the Salesians have been in contact with the Alacaluf for over 20 years, no indication in all that time has been found by the missionaries that any other language is spoken by the canoe-using natives called Alacaluf who frequent the Dawson Island missions (Cojazzi, private communication, citing Prof. Tonelli). The present writer has been unable to get precise details of the provenance of Father Borgatello's informants, but they are probably in the main from the territory east of Port Gallant and south of the Strait; for of the 9 Alacaluf measured by Dr. Outes (*c*, 220) at Dawson Island Mission in 1908, 3 came from Port Gallant, 2 from Magdalen Channel, 2 from Admiralty Sound, 1 from C. S. Pedro and S. Paolo, and 1 from Port Harris, these last two places being on Dawson Island. For the rest, Dr. Skottsberg himself agrees that the Dawson Island Mission "Alacaluf" are really members of this tribe (*d*, 616).

In view of the above facts the present writer is unable to accept Dr. Skottsberg's theory that there is a fourth Fuegian language totally different from the Alacalufan; but in any event the "West Patagonian" vocabulary is of great value, not only for its length and apparent exactness, but still more for the fact that it proves the Alacalufan language to be spoken by natives of the West Patagonian channels as far north as Port Grappler and perhaps as far as the Gulf of Peñas, just as Señor Iriarte's list gave evidence that Alacalufan is spoken as far west and north as the Ŭltima Speranza district.

These newly established facts have a considerable bearing on the question whether or not the Chonoan tongue was a distinct linguistic stock or merely an Alacalufan dialect—a problem to which we shall return later.

To sum up the whole preceding linguistic study, and the bearing it has on the question at issue, namely, the territory occupied by the Alacalufan tribe. The material at hand seems to show with reasonable clearness that the same Alacalufan tongue is spoken by all the non-Yahgan canoe-using Indians of the channels and inlets north and south of the Strait of Magellan and up the West Patagonian coast as far at least as Port Grappler. Fundamentally the two groups of extant vocabularies agree, while their differences appear to be accounted for sufficiently by the presence of loan words and by the considerable element of error inevitable in the circumstances under which the lists were taken.

That there are many local differences of speech seems evidenced both by the lexical material at hand and by the explicit statement of the Rev. Mr. Bridges made in 1886, who had begun by this time his more thorough researches in the Alacalufan language (Th. Bridges, *t*) and had just completed an extensive journey into Alacalufan territory. Whether these local differences are important enough to constitute definite dialects is hard to say. The H-Fi lists may represent a distinct dialect but the evidence is not convincing; they may represent instead merely a hybrid Alacalufan-Yahgan speech used by the natives of the Brecknock Peninsula and Christmas Sound neutral or mixed zone.

A distinct dialect, however, is pretty certainly spoken by the Port Grappler people, as Emilia, Dr. Skottsberg's interpreter, had much difficulty understanding them and making herself understood (Skottsberg, *c*, 102; *d*, 585–586, 609).

The preceding conclusion is of course offered with some reserve and is subject to revision at the hands of those more experienced in Indian philology than the present writer, who has been obliged to venture unwillingly into a field not his own. Then, too, the lexical material leaves much to be desired on the score of volume, while grammatical data are entirely wanting. The recovery and publication of Messrs. Thomas and Despard Bridges' 1,200-word Alacalufan vocabulary would probably make accessible sufficient material to settle definitely the whole question. As for grammatical data, we may hope for some light from Brother Xikora and the other Salesians.

Having now questioned the linguistic criterion for tribal relations over the territory in dispute, we may examine briefly the somatological and cultural criteria. Before doing so, however, one final point may be mentioned.

La Guilbaudiere's vocabulary was gathered not later than 1696.

A comparison with modern Alacalufan shows that the language has not changed to a great extent in these two centuries.[1]

B. Somatological Evidence

So far as the evidence goes, the same physical type is found over the whole area which we are considering, from Dawson Island and Brecknock Peninsula to the vicinity of the Gulf of Peñas. Various observers have noted some differences in physical appearance, natives of larger stature having been reported by Mr. Bynoe (Fitz-Roy, *a*, 197) and by Sr. Serrano M. (*b*, 151) from the West Patagonian Channels, and in earlier times by the Loaisa (Oviedo, II, bk. 20, ch. 10; de Brosses, I, 152) and de Weert (1600 ed., no paging; de Brosses, I, 278; de Renneville, I, 651) expeditions from the Strait. But the osteological evidence does not, so far as it goes, lend any support to these reports (R. Martin, *b*). Besides, although both Admiral Fitz-Roy (*a*, 142) and Dr. Coppinger (48) noted some physical differences between the Patagonian Channel and the Strait Indians, they nevertheless reported them as closely resembling each other (ll. c.). And more recently Dr. Skottsberg emphasizes the general resemblance in physical appearance between the Channel natives and the Yahgans, a physical resemblance that was well borne out by his anthropometric data (*d*, 592; *b*, 250–253).

C. Cultural Evidence

General cultural uniformity prevails throughout the whole area in question. The bow and arrow, it is true, is much more commonly used in the Strait than in the Patagonian Channels; but it is not, or has not been since the eighteenth century at least, entirely absent from the latter region, while among the Alacaluf of the Strait it is and has been used only as a secondary weapon, for killing birds and for guanaco hunting. (For details and references, see Subject Bibliography.)

Admiral Fitz-Roy (*a*, 142) and recently Capt. Whiteside (18) and Dr. Skottsberg (*d*, 579–580) suggest the plank boat as distinctive of the West Patagonian people, the Alacaluf using, or having formerly used, the bark canoe. But the migration of the plank canoe from Chonoan and Araucanian territory down into the Strait can be traced century by century since 1557–58 (cf. for details and references, Subject Bibliography) and has apparently taken place independently of tribal lines. Moreover, La Guilbaudiere's natives, who spoke the same language as Dr. Skottsberg's West Patagonians, had bark canoes, not plank boats (La Guilbaudiere, 4–5; cf. also Marcel, *a*, 491, and *c*, 108). Dr. Coppinger, too, found the bark canoe in use among the Port Gallant natives, who spoke the same language as his Tilly Bay informant (121–122). Finally, the bark canoe has been reported occasionally from various localities well within the West Patagonian Channel area and once at least even from true Chonoan territory north of Taitao Peninsula (cf. for details, Subject Bibliography).

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[1] More than a century earlier, in 1580, Sarmiento picked up some natives at or near Tuesday Bay on the north shore of Desolation Island. They gave him the following names, some of them still preserved on our modern maps, of localities along the western and central Strait (Iriarte's ed., 203–210): Tinquichisgua, Capitloilgua, Xaultegua, Caycayxixaisgua, Exeaquil, Pelepelgua, Cayrayxayiisgua, Puchachailgua, Cuaviguilgua, Alguilgua. All of the names but one end in *-gua*. Could this be the same curious affix (?) which appears in all the words in the Lu and Se lists? Cf. also the Chono local and personal names in B. Gallardo's (Balthasigua, 531–532; Pilgua vecha, 530–531) and Father Garcia's (Feumaterigua, 26; Camarigua, the Caucahues' name for Wager Island, 27; Stelquelaguer, 22; Elalexaguer, 25) narratives. There appears to be a somewhat clearer resemblance between the *ursah* repeated by the natives whom Narbrough met in 1670 at Elizabeth Island at the eastern end of the Strait (65), and the *orza* repeated by those whom Bulkeley and Cummins met in 1741 at the western end (anon. ed., 98; other 1743 ed., 130).

To sum up: The whole region from Brecknock Peninsula and Dawson Island to Port Grappler is, and as far as our evidence goes has long been, occupied by canoe-using Indians of uniform language, somatology, and culture, who call themselves Alacaluf or Ālukulup.

From Port Grappler to Chiloé is another area formerly inhabited, and even to-day partially inhabited, by canoe Indians very similar to the Alacaluf physically and culturally. The fact that a new dialect of Alacalufan began at Port Gallant would suggest perhaps that Alacalufan is spoken as far north as the Gulf of Peñas. In this connection Capt. Pacheco (*a*, 53–54) is authority for the interesting statement that "individuos a quienes se ha visto en el puerto Gallant, se les encuentra en seguida en la bahía Fortuna o en el canal Messier"; these natives, presumably Alacaluf, are said to pass from the Strait to the channels by inland waterways and portages via Jerome Channel, Xaultegua Gulf, Condor Channel, Perez de Arce Inlet, Gajardo Channel, and the west end of Skyring Water.

In view of these recent developments it becomes necessary to reopen and rediscuss an old and puzzling problem: What is the relation of the Alacaluf to the now perhaps extinct Chonos or natives who formerly occupied the archipelagos from the Guaitecas Islands to Taitao Peninsula or the Gulf of Peñas? This question we shall take up in detail in the following section.

CHONOS

Names and Territory

The canoe-using Indians of the Chilean Channels from the Guaitecas Islands to the Gulf of Peñas and beyond have been divided and denominated in a most bewildering fashion by various writers. Tot sententiae, quot homines, is almost literally true in this case.

Goicueta in 1557–58 (518) called the canoe Indians from Corcovado Gulf to Cape Tres Montes, Huillis, a people distinct linguistically from those south of Cape Tres Montes (519). Fathers Venegas and Estevan in 1612–13 (Lozano, II, 456, 560–561) speak of the natives of the Guaitecas Islands and vicinity as Chonos. The Indians encountered by the 1641 expedition were nicknamed by the whites "Gabiotas" (=gulls), in Araucanian, *caucaus* (Rosales, *a*, vol. I, 106, 310). Father Ponce de Leon in 1644 (5; in Medina, *c*, I, 423) used the name Chonos to denote the natives beyond Guafo to the Strait of Magellan.

Father Del Techo in 1673 (159–160) divides the southern archipelagos between the Chuni (=Latinized Chonos) of the Guaitecas Islands and the islands eastward to the mainland, and the Huillis farther south. Father Rosales in 1674 seems to use the term Chonos for all these southern canoe-using Indians (*a*, vol. I, 293, 305; *b*, in Medina, *a*, 103, 162), except the "Gabiotas" or Caucaus mentioned above (*a*, vol. I, 105–106).

Bartolomé Gallardo in 1675 (527, 531) speaks of the Caucagües and Caucanes of the southern islands of the Chilean coast. De Vea in 1676 appears to draw a distinction (573–578) between the Chonos and the linguistically distinct natives south of the Gulf of Peñas whom he calls Caucagues.

Frezier in 1712–13 was told (Amsterdam ed., 1717, I, 147–148; de Brosses, II, 211–212) by Dom Pedro Molina and others that the southern territory was inhabited by the Chonos and the gigantic Caucahues. Father Pietas in 1729 (Gay, Doc., I, 503–504) places the pale Chonos on the shores of the Gulf of Guaitecas and the seacoast and "quebradas"(=ravines=fjords?) of the Cordillera, and the gigantic Caucahues between the Cordillera and the Evangelistas Islands, while near Lake Naguelhuapi lived the Pouyas (ibid., 501). Father Olivares in 1736 (*Col. hist. Chile*, VII, 5, 372, 509 et al.) ascribes to the Chonos and other nations the islands beyond Chiloé, and refers likewise to the Poyas of the Naguelhuapi region.

Byron's guide in 1742 was a cacique among "the Chonos, who live in the neighbourhood of Chiloe" (*a*, 103; Fitz-Roy, *b*, 126; cf., also, A. Campbell, 52–53). Alex. Campbell (60; in Prévost, XV, 388), also of the crew of the wrecked *Wager*, distinguishes between the Petegonens, Chonas, and Coucous, his own party having had contact chiefly with the Coucous. Father Lozano in 1754–55 follows Father Del Techo's (and Goicueta's) division, although he is silent regarding the Huillis in the latter part of his account, which is based directly on missionaries' reports (II, 33–34, 454, 558–561).

An attempt at a more detailed and exact classification is made by Father García in 1766–67. According to his Diario (3–4, 9, 22–26) the Caucahues come from as far south as the Guaianecos Islands. Immediately south of them were the Calens, who frequented the Guaianecos, Messier Channel, and the mainland coast between 48° and 49° (32), and the Tayatafar or Taijatafes apparently of the Wellington Island and Fallos Channel region between 48° and 49°

(33). South of the Calens were the Lechei or Lecheyeles, and south of the Tayatafar were the Requinagueres or Yequinagueres (32–33). Father García further distinguishes between the Chonos and Caucahues and states that the former in earlier times lived in the Ofqui Peninsula region (Hervás, *a*, 16; *b*, vol. I, 125–126), although he elsewhere (Diario, 40) speaks of the Guaitecas Islanders as Chonos.

Beranger in 1768 in his instructions to Sotomayor and Machado (*An. hidr.*, XIV, 72) refers to the Caucahues, and in 1773 (*Relacion jeogr.*, 13–14) speaks of the Taitao Peninsula and Guaitecas or Guafo or Chonos Archipelagos as inhabited by the nomadic "guaiguenes i chonos."

Father Falkner in 1774 (98–99) divided the coastal region from Valdivia to the Strait of Magellan between two groups, the Pichi Huilliches who extended as far south as the sea of Chiloe and ranged into the Lake Naguelhuapi country, and the Vuta Huilliches from Chiloé south. The Vuta Huilliches were in turn divided into the Chonos who lived "on and near the islands of Chiloe," the Poy-yus or Peyes who dwelt on the coast from 48° to a little beyond 51°, and the Key-yus or Keyes or Key-yuhues (111) from the latter point to the Strait of Magellan.

Father Molina in 1776–1782 (*b*, 340) divides the eastern territory between the southern boundary of Chile and the Strait among the Poyas, a tall people related to the Patagonians (*a*, 226), and the Caucau, of medium stature. Fathers Marin and Real in 1779 (217) refer to the "Chonos, Caucahues and others" south of Chiloé. Moraleda in 1786–1796 (327, 124 and passim) speaks of the southern natives settled on Cailin and later on Chaulinec and Apiao as Guaihuenes (i. e., "del sur") or Chonos. Ascasubi in 1789 (Gay, Doc., I, 315–316) calls the Huar, Cailin and Chaulinec Mission Indians, Chonos and Caucahues, and mentions the Payos of southern Chiloé.

Father González de Agüeros in 1791 (185, 188) follows in the main Father García's division, omitting, however, the Caucahues and Requinagueres and adding the Tarucheés. Pérez García in 1810 (*Col. hist. Chile*, XXII, 31–32, 34–35, 109–110) follows literally Father Falkner's division.

Admiral Fitz-Roy suspected that the Chonos, who prior to the Spanish conquest had inhabited Chiloé and the Chonos Archipelago, had by his time (1836) all migrated to the south of Cape Tres Montes (*a*, 142), between which and the Strait there was but one tribe (*a*, 132, 189) whom he called the Chonos. In this last respect Admiral Fitz-Roy has been followed by Prof. Ratzel (*b*) and recently by the late Prof. Chamberlain (*b*, 467, "25°" is evidently a misprint for 52°). As we have seen, however, these "Chonos" were in all likelihood Alacaluf.

Dr. Prichard (*a*, vol. V, 485) follows Father Falkner. According to Dr. Deniker (*c*, Fr. ed., 631), the Chilotan and Chonos archipelagos have been inhabited by the Payos and Chonos, but "il ne faut pas confondre . . . [les] Chonos avec la peuplade homonyme vivant plus au Sud, entre le cap Peñas et le détroit de Magellan; celle-ci paraît se rapprocher plûtot des Fuégiens." The name Payos is used for the natives of southern Chiloé by Capt. E. Simpson (104), Dr. C. Martin (*b*, 465; *d*, 364), and Dr. E. Schmidt (168–169). Dr. Medina (*a*, 110) assigns the archipelagos from Chiloé south to the Chonos, Payos, and Caucahues.

Out of this tangle of contradictory and partially contradictory divisions it is very difficult to bring order. Of the names themselves the most frequently recurring are Chonos (Chuni), Caucaus (Coucous, Caucahues, Caucagues), Huillis (Huilles, Huilliches), Poyas (Pouyas, Poy-yus or Peyes?, Payos?), and Guaiguenes (Guaihuenes).

Three at least of these names are of Araucanian origin. Huilli means south, huaihuen means south wind (*An. hidr. mar. Chile*, v, 518; cf. also Moraleda, 327, 124). Huilli appears for the first time in Goicueta's narrative of 1557–58. According to Father Rosales (*a*, vol. I, 105–106) the natives met by the 1641 expedition were dubbed by the members "Gabiotas" (=gulls) on account of a fancied resemblance of the natives' cries or speech to the gull's call. As the Araucanian name for gull was *caucau* (Rosales, ibid., 310) it is likely the name Caucaus had this origin. It occurs repeatedly after 1641, not before.

The earliest clear record the present writer has found of the name Chono is that in Father Venegas's letter written in 1612 from the Guaitecas Islands and quoted by Father Lozano (II, 456). It occurs commonly thereafter on maps of the region and in Chilean literature. The Chonos Archipelago took its name from the natives, not vice versa, according to Moraleda (327, 311), and in fact the form "Archipelago of the Chonos" is the more common one used in the early literature and maps. Dr. Lenz believes that Chonos is the name the people called themselves (*b*, 312), and Fathers Del Techo and Lozano, as well as Moraleda (ll. c.) seem to imply the same, although they do not say so explicitly. Dr. Lehmann-Nitsche conjectures that it was the Patagonian *chōn* Hispanicized (*d*, 220); this is possible but far from proven.

The identification of the Lake Naguelhuapi Poyas is a task that can be left to the student of mainland anthropological relations. Payo is the name by which the natives of the southern end of Chiloé have been known (Moraleda, 66, and passim). They are suspected of having some Chono blood in their veins, but the linguistic material from this region is Araucanian (cf. E. Simpson, 104), and even in Moraleda's time they seem to have spoken Araucanian (53).

Of the gigantic Caucahues more will be said when treating of Chonoan somatology. The canoe-using Indians of the southern archipelagos are nearly always described as of middle stature. Of the various names by which they were known, the most preferable in view both of anthropological usage and of probable native origin seems to be that of Chonos. In the following pages and throughout the present work this name will be used for the canoe-using Indians of the territory between the Guaitecas Islands and the Taitao Peninsula, the Gulf of Peñas or the Guaianecos Islands. There may possibly have been more distinct tribes than one in this region, but there is no clear evidence to that effect and provisionally at least we may look on all the Indians of the district as one people.

A. Chonoan Language

Admiral Fitz-Roy published (*b*, 142) as Chonoan, three words: *yĕrrĭ yŭpon*, "Good Deity"; *yăccў-ma*, "bad spirit"; *cŭbba*, "white men of the moon." These words were obtained no doubt from Capt. Low, who did not speak the native language. But even accepting them as correct, they still give no adequate basis for comparison with other languages. One of the words, *yăccў-ma*, is vaguely suggestive of the Alacalufan *yákár*, "black face"; the bad spirit was "supposed to be like an immense black man" (Fitz-Roy, *a*, 190). It may be recalled, too, that Admiral Fitz-Roy's "Chonos" were the natives of the channels south of Cape Tres Montes, most if not all of which territory is at present Alacalufan.

That the Chonos spoke a language quite distinct from the Araucanian appears to be amply established from first-hand evidence. Cortés Hojea understood some Araucanian, for he conversed with the Araucanian-speaking natives of Coronados Gulf; but his chronicler, Goicueta, distinctly states that the "Huillis" south of the Gulf of St. Martin, that is, Corcovado Gulf, spoke another language (Goicueta, 514, 518). Father Del Techo explicitly affirms that Delco, the Guaitecas Islands chief, used "an interpreter who knew the Chilotan tongue," which was an Araucanian dialect, in his interview with the missionaries (bk. 6, ch. 9, 159), that Father Ferrufino used an interpreter to translate into Chono the prayers and act of contrition (160), and that the Huillis to the south of the Chonos nearer the strait "stlopos[1] pro vocibus edunt" and "when taken to Chiloé, were of no use except to frighten birds away from the grain fields, until they learned the Chilotan tongue" (160).

Father Venegas is equally explicit (letter quoted by Lozano, II, 456; cf. also II, 560); his missionary companion, Father Matheo Estevan, took great pains to learn the Chonoan language spoken by the Guaitecas Islanders, and, although he already spoke at least some Chilotan (Lozano, II, 448), in making his translations into Chono, he used a native Chono interpreter who understood Chilotan. In saying farewell to the Chonos the two missionaries "quà verbis, quà gestis" (Del Techo, 160) indicated their desire to remain with their neophytes for good.

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[1] *Stlopus*=sound made by striking the inflated cheeks.

The gigantic Indians met by the 1641 expedition spoke a language not understood by the members and suggestive of the gull's cries (Rosales, *a*, vol. I, 106), though it is barely possible that there is a question here of Tehuelches. Father Rosales elsewhere states (*b*, quoted by Medina, *a*, 94–95) that the Chonos' speech was different from that of the Chilotans.

Bartolomé Gallardo, who had been born and reared in Chiloé, and who certainly must have spoken Chilotan, the Araucanian dialect in almost as common use among the Spaniards as among the Indians of Chiloé, had to use an interpreter in order to question a native woman of the Moraleda Channel and Gulf of Peñas region (*An. hidr.*, XI, 530; cf. also 527, 532). De Vea, who seemingly did not understand Chilotan, used tandem interpreters, speaking, respectively, Spanish and Chilotan, and Chilotan and Chono, to communicate with the old Chono woman whom he captured on Xavier Island in the east end of the Gulf of Peñas (*An. hidr.*, XI, 576, 578). No one in Chiloé knew the language spoken by Father Pietas' gigantic Caucahues (Gay, Doc., I, 504), apparently a canoe-using people, as some of them were found on an island (ibid.). Father Olivares (*Col. hist. Chile*, VII, 5, 372, 394), who had probably been in touch with the Chonos at the Huar Island Mission, states clearly that the Chonos or natives of the southern islands spoke a language different from the Chilotan.

Alex. Campbell states (62, 74) that the guttural language of the Indians who guided his party from Wager Island to Chiloé was "quite different" from the soft tongue spoken by the Chilotan Indians. Father García (*b*, in Hervás, *a*, 16 and *b*, vol. I, 125–126), who had had most intimate contact with the Chonos at the Cailin Mission and in the Guaianecos Islands, although he did not apparently speak their language, is very positive in asserting that the Araucanian tongue was quite different from the tongue(s) spoken by the seafaring Indians south of Chiloé.

Machado (*An. hidr.*, XIV, 86, 121), Fathers Marin and Real (González de Agüeros, 218, 236), and Fathers Menendez and Bargas (ibid. 245), all apparently had to make use of interpreters to converse with the natives of the Chonos Archipelago and the Gulf of Peñas. Finally Father Molina's Caucaus, of medium stature, whose clothing consisted of seal skins, spoke a language "assai diversa" from the Chilien (*b*, 340).

D'Orbigny (*b*, vol. IV, pt. 1, 185) and Dr. Brinton (*c*, 325) classed the Chonos with the Araucanian linguistic stock, and more recently Drs. Weule (52) and Krickeberg (140) state that the Chonos were akin linguistically to the Araucanians. But none of these authors, except d'Orbigny (see Author Bibliography), produce evidence to prove their statements. Prof. Poeppig, whom Dr. Brinton quotes with reserve, had no first-hand information on the subject and seems merely to follow Father Falkner, whom he cites (I, 464).

It seems, therefore, established with reasonable certainty from the testimony of the numerous early authorities, most of them presenting first-hand data, that whatever the Chonoan language was, it was not an Araucanian dialect.

Was it, however, related to the Patagonian or Tehuelchean? Dr. Lehmann-Nitsche's hypothesis that Father Estevan's Guaitecas Islanders were a branch of the Ona-Tehuelche *Tshon* people is discussed in detail in the Author Bibliography under Estevan.

Father Falkner stated (99) that his Vuta Huilliches, including the Chonos, Poy-yus and Key-yus, spoke a mixture of Moluche and Tehuelche—an opinion followed by Pérez García (*Col. hist. Chile*, XXII, 34–35). Dr. Lenz more recently (*b*, 312) has suggested that the Chonos "were probably near relatives of the Tehuelches and Onas." If, however, the Chonoan had been a mixed Araucanian-Tehuelchean tongue, some of the many early observers would in all probability have detected traces of the Araucanian element. Father Falkner was not writing here from personal knowledge and was using the name Chonos in the loose sense formerly not uncommon, to denote the Indians living "on and near the islands of Chiloe," who as we know from the best first-hand sources spoke an Araucanian dialect (González de Agüeros, 110–111; Moraleda, 207; Olivares, 370). Byron's Chonos came from "the neighborhood of Chiloe" (*a*, 103) and Capt. E. Simpson appears to identify the Payos and Chonos (104). The natives, therefore, whom Father Falkner's informant had in mind were pretty clearly not true Chonos at all. Further details on the Vuta Huilliches are given in the Author Bibliography under Falkner.

If the Chonoan tongue was neither an Araucanian nor a Patagonian or Tehuelchean dialect, was it a distinct linguistic stock or was it related to the Alacalufan? The late Prof. Chamberlain (*b*, 468) accorded it the dignity of a distinct stock, but the evidence he adduces goes to prove merely its distinction from Araucanian.

Below is given what evidence bearing on the question the present writer has been able to glean from available sources:

Goicueta, Cortés Hojea's chronicler, after remarking that the Huillis from Corcovado Gulf to Cape Tres Montes spoke a language different from that of the Coronados Gulf people (518), adds (519) that the more southern Indians between Cape Ochavario or Tres Montes and the "Strait of Ulloa" are "de otra lengua que no la de los huillis dicha, é por gente es mas pobre," etc. This is concise and clear enough, and for the rest Goicueta is a very sober and exact narrator. But we must bear in mind that neither he nor his captain understood or spoke the Huillis' tongue, although Cortés Hojea knew some Araucanian. The information regarding the Huillis themselves was in all probability gathered on Cortés Hojea's trip four years earlier when he accompanied Ulloa. There is no explicit evidence that linguistic investigation was made on either expedition.

Father Del Techo puts the Huillis south of the Guaitecas Islanders or Chonos; the two peoples were at odds and the Chonos used to capture the Huillis and keep them in servitude or sell them to the Chilotans. He also notes some differences in culture and physical appearance between the two groups and adds that the Huillis "stlopos pro vocibus edunt" (160). Stlopus is a word seldom met with in Latin literature; it means the sound produced by striking on the inflated cheeks.[1] Father Del Techo's silence regarding the Chonos' tongue contrasts with his strong characterization of the outlandish nature of the Huillis'. This apparently implied contrast taken in connection with the cultural and somatological differences and with the intertribal man-raiding, might perhaps be interpreted as a possible indication of linguistic distinction between the Guaitecas Islanders and their more southern neighbors.

De Vea's *Relacion* is a little more satisfactory. A certain Talcapillan, apparently a Chono in spite of his Araucanian name, had been overheard at Chacao on Chiloé making a remark which implied that the "Holandes" had founded a colony in the southern islands. In October, 1674, Bartolomé Gallardo set out from Chiloé to locate the supposed colony, but after scouring the northern shores of the Gulf of Peñas returned from a fruitless quest (*An. hidr.*, XI, 525–537). In September, 1675, Antonio de Vea sailed from Lima and Callao with the same object in view, stopping at Chiloé on the way south and taking on some troops and friendly Indians. They crossed the Isthmus of Ofqui, and on Xavier Island in the eastern part of the Gulf of Peñas captured a native woman. She was evidently not a Chilotan, for she was called a Chona by de Vea (576), she was captured in Chonoan territory, and her cross-examination by de Vea, who did not apparently speak Chilotan, had to be carried on through tandem interpreters "sirviendo de intérprete el alferez Lázaro Gomez con el indio don Cristobal [Talcapillan mentioned above], y este con la india" (576; cf. also 574), while of her third and final examination de Vea wrote "primeramente quise volver a examinar la india por el indio Mailen intérprete Machuca con él" (578).[2]

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[1] It is interesting to recall that Prof. Topinard described the intonation of the Alacaluf whom he studied at Paris, as not guttural, but "buccale et comme muqueuse" (775).

[2] Mailen, Mailes, or Mayles had served as interpreter the year before between B. Gallardo and the Chonos taken back to Chile and Peru (B. Gallardo, 536); he also examined the Chono woman (de Vea, 574); it is pretty clear, then, that he spoke Chonoan. Lieut. Machuca spoke Chilotan at least, for he examined Talcapillan (de Vea, 578), but probably did not speak Chonoan. Talcapillan did not speak Spanish, for Machuca had to interpret for him, but apparently spoke Chilotan as well as his own Chonoan.

This Chono woman in the course of her first and especially third examinations testified that she had never been beyond the Gulf of Peñas district, but that she knew the language of the Caucagues who lived there, having learned it from them on their visits to her country.

This testimony seems at first glance to show clearly that there was a linguistic dividing line near the Gulf of Peñas. But in the first place the veracity of the Chono woman is open to question; for some Chono Indians had been captured the year before by B. Gallardo and taken away to Chiloé and the north, and the old woman knew this (de Vea, 574); so she may have well been suspicious of the designs of her armed captors and questioners, and anxious to give them the impression that she was not one of the group for which they were searching. Secondly, even granting her truthfulness and good faith, what she called a different language may have been only a different dialect; in fact, Dr. Skottsberg's interpreter, Emilia, made just such a mistake regarding the Port Grappler people's dialect (*d*, 585–586).

B. Gallardo's and de Vea's accounts imply that the same language was spoken by the natives both north and immediately south of Taitao Peninsula. Father García's expedition nearly a century later brought out this fact more clearly. He calls all the natives who accompanied him Caucahues, and in the course of the voyage some of them pointed out various places both north and south of the peninsula where they had been born or reared—one near the foot of Moraleda Channel (9), others near Boca de Canales (22), another near the Ayantau Islands (23). Their kinsmen, too, used to frequent the Guaianecos Islands (25–26). Moreover, Father García elsewhere (Hervás, *a* and *b*) clearly implies that the Caucahues extended as far as the Guaianecos Islands and the head of Messier Channel.

Moraleda's Chono guides were familiar with much of the territory north of Taitao Peninsula, although at least some of them probably had come from south of the Peninsula with the missionaries (51, 292, 319, 358).

In the eighteenth century, therefore, the tribal or linguistic dividing line, if such existed, was not, as one would expect from the topography of the district, at the Taitao Peninsula, but a little farther south.[1]

Father García puts just such a line at the Guaianecos Islands:

> I reached [he wrote in 1783, speaking of his 1766–67 expedition] beyond the 48th degree of south latitude, where the Calen and Taijataf nations were; and there I found that beyond these nations towards the Strait of Magellan there were two other nations called the Lecheyel and Yekinahuer, which according to my observations must be on the shores of the Strait of Magellan. Of the language of these nations, I can only say that it is not Araucanian or Chilian.

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[1] Canoe communication between the Chonos Islands and the Gulf of Peñas by way of the unsheltered Pacific coast must have been well-nigh impossible; but, on the other hand, the portage route via S. Rafael Lagoon and the Isthmus of Ofqui made communication between the two districts comparatively easy.

> The Calen and Taijataf nations speak the same language, which is quite guttural and not at all like Araucanian; the two nations can understand each the other's language, though it appears that each has its own dialect, of which the Araucanians or Chilians understand nothing.
>
> Beyond the Calens and Taijatafes towards Chile are the Caucabues [evidently a misprint for Caucahues] and Chonos. Each of these nations has its own language, and, although I know that the languages of these two nations are not dialects of the Araucanian, I can not, on the other hand, say whether they are modified sister dialects of a common mother tongue or peradventure two distinct tongues. [Hervás, *b*, vol. i, 125–126.]

Father García implies in his letter, although he does not say so in so many words, that the Calens and Taijatafes who lived south of the Gulf of Peñas spoke a language different from that of the Chonos and Caucahues. And in support of his implicit assertion it may be urged that he had been in actual contact with members of both groups—with the Caucahues for a couple of years at Cailin Mission, with the Calens for a shorter time at Cailin (3, 25) and the Guaianecos Islands. He would have had an opportunity during this time to pick up a few phrases at least of their language(s).

But, on the other hand, the emphatic manner in which he maintains the non-Araucanian character of the languages of all these southern nomads contrasts with the hesitation and guardedness with which he defines the linguistic relations even between the Chonos and Caucahues, the people best known to him—a contrast which gives us the impression that his linguistic distinctions among the canoe-using nomads of the south were based on inferences which he felt to be somewhat insecure.

It is true, as he tells us in his Diario (30–31), he made a considerable address to the Guaianecos natives, explaining the purpose of his expedition and summarizing the principal mysteries of the Christian faith, but it seems more likely that this was done through the medium of some native interpreter who understood Chilotan or Spanish. There may easily have been some such interpreter available, for the Chonos were wont to come at times to Chiloé to barter (Beranger, 13; Del Techo, 159), and some of his Caucahues or Calens during their previous stay at Cailin Mission could have acquired a little knowledge of Spanish or Chilotan.

Again, Father García's Diario shows that there was considerable friendly commingling and intercourse between the Caucahues and their more southern neighbors the Calens and Taijatafes. The Caucahues met the others amicably on the expedition itself (28–29, 31);[1] they related incidents of former meetings, peaceful at first at least, to share their treasure-trove in the shape of stranded whale (25); and a year before the expedition a party of mission Caucahues sent out on a reconnaissance by Father García had actually brought back with them to the Cailin Mission some of the Calens of Messier Channel (3). All this would suggest tribal or linguistic unity, although it is of course possible that the southern Gulf of Peñas region was the meeting ground of quasi-friendly bilingual tribes, as are or were (cf., e. g., Th. Bridges, *k*, 234) the boundary zones between the three Fuegian tribes.

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[1] Frezier, too, implies that the Chonos and tall Caucahues were on friendly terms (I, 147–148).

Father García's testimony, therefore, while in the main favoring a linguistic dividing line at the Guaianecos Islands and the head of Messier Channel, falls considerably short of being conclusive.

Finally, we may examine Admiral Fitz-Roy's evidence. His "Chono" vocabulary has been discussed above. His expedition saw no non-Araucanian natives between Taitao Peninsula and Chiloé, so he was not in a position to make comparisons at first hand, and in fact he speaks quite guardedly of the surmised identity of the West Patagonian Channel Indians with the Chonos proper (*a*, 142; cf. also 379–380). He is, however, more positive in stating that the same tribe inhabits all the channels from the Strait to Cape Tres Montes (*a*, 132, 189). He bases this assertion chiefly on information given him by Capt. Low, who had had much experience in this region (*a*, 188, 129, 182). According to Capt. Low the natives from the Strait to Cape Tres Montes all "seemed to be of one tribe, and upon friendly terms with one another." Niqueaccas, a native taken aboard Capt. Low's ship the *Adeona* as pilot near Cape Victory, was perfectly familiar with the harbors and channels, was acquainted with all the natives, was always glad to see them, and was always well received by them, as far north as 47°, the latitude of Cape Tres Montes (*a*, 189–190). Capt. Low did not speak the native language(s), but the account he gives seems to make for the tribal and linguistic unity of all the natives south of the Taitao Peninsula.

One more point may be mentioned. Our extant authorities do not to the present writer's knowledge describe the language of the Guaitecas Islanders as guttural. The language of the natives farther south is, however, described as such by Father García (*b*, in Hervás, *b*, vol. I, 125), and that of the Coucous by Alex. Campbell (62, 74; Prévost, XV, 388) as "coming gutterally from the throat" (cf. also Del Techo, 160, "stlopos pro vocibus edunt").

The recently published data showing that at the present time the Alacaluf extend well up the West Patagonian channels as far as Port Grappler and probably as far as the Gulf of Peñas have already been given.

The foregoing is all the evidence that the present writer has been able to glean from the available sources on the question of the linguistic relations of the Alacaluf and now perhaps extinct Chonos.

That the Chonos spoke a language quite distinct from the Araucanian seems amply testified. That they spoke a Tehuelchean dialect is very unlikely indeed. That their language was distinct from that of the natives farther south, presumably Alacaluf, is perhaps slightly more probable than not, but such a conclusion is suggested with the greatest reserve. Much more light is needed, light that may come either from the recovery of the Estevan or Ferrufino manuscripts, or from investigation among the modern Gulf of Peñas natives or the possibly surviving descendants of the Chono family found by Capt. Enrique Simpson on the Guaitecas Islands in 1875 (114).

Leaving the uncertain ground of Chonoan and Alacalufan linguistic relations, we may now pass to the consideration of their fairly clear somatological and cultural relations.

B. Chonoan Somatology

Physical appearance.—The early sources do not, unfortunately, give us much information regarding the physical appearance of the Chonos.

The "Gabiotas" or Caucaus encountered by the 1641 expedition were reported to be of gigantic stature (Rosales, *a*, vol. I, 105). Father Pietas, too, who had seen one of the Caucahues, describes them as giants (Gay, Doc., I, 504), while Frezier was told (Fr. 1717 ed., I, 148; de Brosses, II, 212) that the "gigantic" Caucahues used to come at times with Chonos to Chiloé. Father Falkner's Vuta-Huilliches, or larger-bodied Huilliches, lived on both sides of the Cordillera to the Strait (96, 99). Finally Mr. Bynoe met some large, stout Indians in the Gulf of Trinidad (Fitz-Roy, *a*, 197).

May we accept the above testimonies as evidence for the former existence of a very tall people in the southern Chilean archipelagos? It seems not. No concrete measurements were taken. Then, too, the Chonos, like the Fuegians, very probably differed individually in stature and stoutness or robustness. Moreover, reports of giants are too common a feature of early Magellanic literature to be taken very seriously.

There may be question of possible sporadic visits of Tehuelches across the Cordillera to the coast—Mr. Bynoe (Fitz-Roy, *a*, 199) saw horse tracks near the upper part of Obstruction Sound—but even this is doubtful.

In fact the Caucahues are elsewhere described (Molina, *b*, 340; Alex. Campbell, 62) as of middle stature, while Moraleda says (124) that the natives—some of them at least Caucahues as Father García calls them—brought back by the missionaries to the Chilotan missions, should rather be described as "parvulillos" as compared with the Patagonian giants of whom Byron wrote.

The natives who frequented the Guaianecos Islands were of medium or low stature, as we know from the sixteenth century account of Ladrillero (464, "de mediano cuerpo"; cf. also 484, and Goicueta, 505) and the eighteenth century accounts of Byron (*a*, 33, "small stature"; cf. also 144), Alex. Campbell (20) and Bulkeley and Cummins (anon. ed., 18, 28, other 1743 ed., 37, low stature; ditto in Affecting Narrative ... 30). They had swarthy skin and long coarse black hair hanging over their faces (Byron, *a*, 33; A. Campbell, 20; cf. also Del Techo, 160).

The men met by Ladrillero in the Conception Strait region had beards (473), as had also the "Gabiotas" (Rosales, *a*, vol. I, 105). Bearded men are not reported by other expeditions to southern Chilean waters. The Alacaluf and Yahgans are usually unbearded, but there are exceptions (cf. Subject Bibliography, p. 182).

Father Del Techo's quasi-verbatim report (160) of the replies made by Delco the Chono "cacique" of the Guaitecas Islands to the questions of the missionaries, Fathers Venegas and Ferrufino, contains the following statement: "A great many of our people have red hair and an olive complexion" [plurimi capillo rufi, oris colore oleastri]. This statement regarding the occurrence of red-haired individuals among the Chonos is not confirmed by any later sources. The Fuegians' hair is nearly always black; but among both the Yahgans and Alacaluf some cases of chestnut-colored (Bove, *a*, 790; *b*, 134; *d*, *Arch.*, 290), "châtain foncé" (Hyades, *q*, 160–161), and "bräunlich schwarz" (Skottsberg, *b*, 256; cf. also 252) hair occur. According to Dr. R. Martin (*b*, 208) Fuegian hair sometimes has a light brownish tone, while the Rev. Mr. Bridges stated that Yahgan hair shows "many shades of black, many having a reddish yellow tinge" (*d*, 289). The "capillo rufi" should probably be understood to refer to reddish-tinged hair.

According to Father Pietas (Gay, Doc., I, 503; cf. also Lozano, II, 454) the Chonos were a light-skinned people, while Father Rosales not only describes the "Gabiotas" as somewhat white-skinned (*a*, vol. I, 105), but states that "los chonos eran comunmente blancos i rubios" (*b*, in Medina, *a*, 103) and that the Chonos were "blancos y de buenas facciones" (*a*, vol. I, 293). It is possible, however, that the observers on whom Father Rosales relied had mistaken body paint for skin color; white and red body and face painting was a common practice among the natives south of Chiloé (García, *a*, 28, 31; Goicueta, 505). The natives who came to visit the shipwrecked crew of the *Wager* at the Guaianecos Islands were swarthy skinned (Byron, *a*, 33; A. Campbell, 20; cf. also Del Techo, 160). As in stature so in skin color there appears to have been considerable variation among the Chonos just as among the Yahgans. "Not a few" of the latter, the Rev. Mr. Bridges noted (*d*, 288), "have a decided rouge on their cheeks," and La Guilbaudiere described the Alacaluf as white-skinned (4), as L'Hermite described the Yahgans (41).

So far, therefore, as our records go, there seems to be no sufficient ground for positing a tribal difference between the Chonos and the Fuegians proper on the score of physical appearance.

Osteology.—Dr. Medina gives (*a*, 108) the measurements of a cranium described simply as "antiguo" from the Chonos Islands, and of a calvaria listed as "mui antiguo" from Puerto Americano. Dr. Latcham studied three crania from the Chonos Islands and three from the Guaitecas Islands (281). Dr. Hultkrantz measured one cranium from the Guaitecas Islands (*a*, 43–45). This material is not very extensive, it is true, but all three writers agree that the Chono skull shows a manifest affinity with the Fuegian (Medina, *a*, 110–111) and particularly the Alacalufan (Latcham, 281–282; Hultkrantz, *a*, 46) cranial type (cf. also Hyades, *q*, 45).

The fact that the crania just mentioned, as well as those described by Prof. Flower (178; 2d ed., 309–310) and Dr. Outes (*c*, 219), have a somewhat higher *average* cephalic index than the Alacalufan may be an indication that the Chonos had a certain strain of Chilotan blood, if the Araucanians be classified as brachycephalic, or had at least mixed to some extent with some brachycephalic people. But there seems to be no well-grounded doubt of their fundamental somatological identity with the Fuegians, the Fuegian cranial type being one easily recognizable.

C. Chonoan Culture

As far as culture is concerned, uniformity even to many minute details has prevailed over the whole area from the Guaitecas Islands to Dawson Island and Beagle Channel (cf. for details Subject Bibliography, under Culture).

Two apparent exceptions are the bow and arrow and the plank boat. The bow and arrow has, it is true, been more commonly used in the Strait, but on the other hand has not been entirely absent from the West Patagonian coast. Byron's natives, for instance, used "bows and arrows sometimes, but always the lance" (*a*, 129). The plank boat, probably of Araucanian origin, has to all appearances migrated south and east quite independently of tribal lines. For details regarding these two cultural elements and Chonoan-Fuegian culture in general see the Subject Bibliography under Material Culture.

Then, too, there is evidence that a certain minor and superficial Araucanian or Chilotan cultural influence has passed down the Chonoan and West Patagonian coast, weakening as it neared the Strait of Magellan.

While no systematic agriculture or herding was carried on south of Chiloé (Olivares, 372; Ladrillero, 464; Ponce de Leon, 5, and in Medina, *c*, vol. I, 424; Pietas, 503), yet both were of sporadic occurrence among the Chonos, especially north of Taitao Peninsula. According to Beranger (13) the Chonos kept a few sheep and goats on their islands, and some concrete instances of the practice are given by Moraleda (324, 329, 358). The Indians who came to visit the wrecked *Wager's* crew in the Guaianecos Islands went away and returned in two days with three sheep (Byron, *a*, 34; Bulkeley, anon. ed., 18, other 1743 ed., 23; A. Campbell, 19; Affecting Narrative, 30). Father Lozano also states that a few bad-tasting potatoes and a little barley were raised on some of the less sterile of the Guaitecas Islands (II, 559; cf. also Moraleda, 358).

The Guaitecas Islanders had no native intoxicant (Olivares, 373; Lozano, II, 559; García, *a*, 42). The "cacique" Delco told the missionaries that his people "pro potu ex lupis marinis oleum exprimunt, praeter quem liquorem nullius vini aut potionis delicias norunt," although he had just stated before that "in Guatana insula, patria mea, triticum turcicum, ex quo vinum conficitur, non malè jam provenit" (Del Techo, 160). This latter was pretty certainly an importation from Chilotan culture.

Such an Araucanian influence began to make itself felt even before the Spanish conquest, for Cortés Hojea on his return journey in 1558 found on an island facing the Pacific Ocean at about 44° s. lat. some old abandoned potato patches (Goicueta, 513).

That some of the Chonos north of Taitao Peninsula raised a breed of long-haired shaggy dogs, from whose hair they made short mantles covering the shoulders and upper part of the trunk, is attested from two apparently independent sources (Goicueta, 518, based on Cortés' expedition with Ulloa; Del Techo, 160, from testimony of Delco the Chono headman; cf. also Lozano, II, 34). They are said, too, to have made mantles from the bark of a tree called "quantu" (Goicueta, 518), as the Chilotans made from the bark of the maque tree (Rosales, *a*, vol. I, 224).

The stone ax was in earlier times very uncommon south of Chiloé. None of the earlier writers, such as Goicueta and Ladrillero, reported it in use south of Taitao Peninsula. Father Rosales mentions its use around Chiloé, but adds that the natives near the Strait used fire and shell to make the planks for their boats, as they had no axes (Rosales, *a*, 174; cf. also García, *a*, 23). Dr. Medina gives illustrations of two polished axheads from the Chonos Islands (*a*, 75, fig. 16, 18) and a perforated one from the Guaitecas Islands (*a*, 76, fig. 22). Dr. Cunningham brought back three stone "hatchet heads" from the Guaitecas Islands (335). Dr. Coppinger, "in spite of a most diligent search," found only one partly ground axhead, in a very old kitchen midden somewhere south of Cape Tres Montes (52–53, ill. opp. p. 34).

That the cultural elements just enumerated—sporadic agriculture and herding, the polished stone ax and the plank boat—should have passed over to the Chonos from the Araucanians is easily accounted for, as there was considerable friendly and unfriendly contact between the Chilotans and their neighbors to the south.

According to Father Del Techo (160), as far back as 1609 the Chonos used to capture the Huillis to the south and keep them or sell them into a kind of slavery among the Chilotans. Father Olivares gives many details of the bitter feuds between the Chonos and Chilotans and of the raids and reprisals by one people upon the other, a situation brought to an end in 1710 by the voluntary surrender of 30 harassed Chono families and by their settlement upon the island of Guar (373, 394). Talcapillan, a Chono who lived 60 leagues south of Castro, came to Chiloé with some of his people (Olivares, 377; cf. also Bart. Gallardo, 526–527). Father Lozano states that Delco, the Guaitecas chief, used to come to Chiloé once a year (II, 454; cf. also Del Techo, 159); while on Delco's visit to the missionaries, Fathers Venegas and Ferrufino, at Chiloé in 1609, five boatloads of his people accompanied him (Del Techo, 159). When Fathers Venegas and Estevan set out in 1612 from Chiloé for the Guaitecas Islands they were accompanied by 10 Chilotan rowers who knew the Guaitecas region from having participated on an earlier occasion in a raiding expedition among the Chonos (Lozano, II, 455). Frezier was told that the Chonos were wont to come to Chiloé and sometimes bring Caucahues with them (I, 148; de Brosses, II, 212). One at least of the natives who some months after the wreck of the *Wager* in 1741 came to visit the English was a Chilotan who could speak Spanish (A. Campbell, 52), while the Chilotan poncho was observed among the group who visited the island a few days after the wreck (ibid., 20). Finally, in Beranger's time—around 1773—it was the custom of the Chonos to come to Chiloé at fiestas and exchange seafood for clothing, potatoes, and barley (Beranger, 13).

No doubt, too, the missions to the Chonos, especially to the Guaitecas Islanders, maintained by the Jesuits intermittently from 1612 to 1767 and by the Franciscans later, did much toward spreading some elements of Chilotan and Spanish culture among them.

Beneath the cultural importations, however, one can see as through a thin veil the extremely primitive culture of the Chonoan nomads. This very low culture sharply contrasts with that of the much more advanced Araucanians, even those of Chiloé; while on the other hand it is practically identical with that of the Alacaluf, not only in its broad outlines, but also in its detailed features as far as the available sources reveal them to us.

To sum up the relations between the Chonos and Alacaluf, the question of their linguistic relations must for the present be left open, although there appears to be a very slight preponderance of evidence in favor of linguistic disparity. The Chonoan cranial type is fundamentally the same as the Alacalufan but seems to give indications of a certain amount of racial mixing between the Chonos and some other people, perhaps the Araucanians. Culturally, apart from a negligible Araucanian influence, the Chonos and Alacaluf are practically identical.

PRESENT CONDITION OF THE CHONOS AND ALACALUF

At the time of the Spanish conquest the Chonos Archipelago was thinly populated (Del Techo, 160). Cortés Hojea on his return journey seems to have met no natives at all. A little over half a century later when the first missionaries went to the Guaitecas Islands they baptized some two hundred-odd natives, probably all or nearly all they encountered, as the Indians received them in a very friendly spirit (Del Techo, 160–161; Lozano, II, 561).

The relations between the Chilotans and Chonos were to a certain extent unfriendly from very early times. The 10 Chilotan rowers who accompanied Fathers Venegas and Estevan in 1612 to the Guaitecas Islands had participated in earlier raiding (Lozano, II, 455), while the Guaitecas Indians in turn used to capture the more southern Huillis and keep them in a sort of servitude or sell them to the Chilotans (Del Techo, 160).

The feud between the Chilotans and Chonos was patched up by the missionaries (Olivares, 372–373), but soon broke out again. The Chonos used to steal iron and wearing apparel from the Chilotans; the Chilotans retaliated by punitive expeditions among the former, on which they would kill the men and take captive the women and children (Olivares, 394, 373). Finally in 1710 more than 30 Chono families surrendered and were settled under the Jesuit missionaries on the island of Huar or Guar in the Gulf of Reloncavi. Being well treated, their example was followed by others until the number swelled to 200 families, or more than 500 souls, so that two more islands in the vicinity were ceded to them as "reservations." They or some of them were still there in 1736 (Olivares, 394), but in 1795 when Moraleda visited Huar he found Spaniards only and no Indians on the island (Moraleda, 474; Fonck, II, 172).

Some of the Guaianecos Indians were brought back in 1745 and established on the island of Chonchi. In 1765 the island of Cailin was set aside as a mission for the Chonos. Hither came many Caucahues and later Calens (García, *a*, 3, 25). In 1779 Fathers Marin and Real persuaded 11 of the Guaianecos natives to return with them to Chiloé, and a year later 30 or 32 returned with Fathers

Menendez and Bargas (González de Agüeros, 181–182, 185, 236, 248). The latter group were taken to the island of Lemui, but left about a year after (Moraleda, 332, 435; Fonck, II, 151).

Cailin was peopled until 1780–81, when the Chonos, at their own request, were transferred to the island of Chaulinec (Moraleda, 306–307). In 1787 Moraleda found Cailin uninhabited, and in 1788 reported 21–22 families of Chonos on Apiao Island just northeast of Chaulinec; but in 1790 the surviving Chaulinec Chonos to the number of 22 returned to Cailin (Moraleda, 79, 124, 306–307).

In all cases these mission Chonos appear from the original documents to have followed the missionaries voluntarily, not as a result of coercion, as is sometimes stated; but as a rule they soon became dissatisfied, it seems, and returned to their freer nomadic life.

We hear nothing more of note about the Chonos until 1875. Admiral Fitz-Roy's expedition found no Chonos in the archipelago of that name,[1] but in 1875 Capt. E. Simpson came across a sole family of Chonos, named Lincoman, in Puquitin Channel between Ascension and Guaitecas Islands (E. Simpson, 114, 18, 43; C. Martin, *b*, 465; *c*, 402; *d*, 364).

Some of this family or their descendants may still be in the Chonos Archipelago, but all recent reports declare that the islands north of Taitao Peninsula are uninhabited except by rare or transient whites or Chilotan Indians (Lenz, *a*, 33; Pacheco, *c*, 30; Steffen, *a*, 54). It is possible, however, that some Chonos may still survive in the Gulf of Peñas region.

According to Capt. Steele (Skottsberg, *b*, 270) there are about 200 natives in the Gulf of Peñas and northern Messier Channel district. This estimate may, however, be somewhat too high. Dr. Skottsberg encountered about 80 Alacaluf on his expedition between Port Grappler and Port Gallant, and was told of about a dozen more. He estimates that he saw about a half or at least a third of the total number of inhabitants of this region (*d*, 591–592; cf., also, Steffen, *c*, 463).

Mr. Thomas Bridges, after his visit to the Alacaluf in 1886, placed their number at about 150 (Hyades, *q*, 12), while in 1902 Dr. Dabbene was told that there were from 200 to 800 surviving Alacaluf (*b*, 216–217). Father Pietro Renzi, of the Salesian missions, after a recent visit among the Alacaluf, gives their population as less than 200 (*Boll. sales.*, July, 1910, 221, cited by Cojazzi, 16). Still more recently Mr. Lucas Bridges is cited as authority for the statement that there are now only about 100 survivors of this once widespread people (Gasperi, 164).

The more reliable estimates, therefore, vary from about 200 to 400. To judge from the early accounts, like Sarmiento's, Ladrillero's, and

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[1] Lieut. Skyring found less than 20 natives in his 400 to 500 mile cruise through the Patagonian channels (King, 345).

Goicueta's, the channels between the Gulf of Peñas and the western mouth of the Strait of Magellan are probably but little less sparsely populated now than they were three centuries ago, but in the territory east of the western mouth of the Strait the aborigines have very greatly decreased in number. Anthropological studies, if to be made at all, must be made in the very near future.

ONAS

The Foot Indians of the island of Tierra del Fuego should be classed with the Patagonians, but both anthropological usage and geographical position sanction our including them among the Fuegians.

Names

The name varies somewhat: Dr. Moreno used O'ona (*a*, 1st ed., 459; 2d ed., 461; *b*, 201; *c*, 109); Dr. Spegazzini, Aona (*a*); Dr. Segers, Aona (63); Dr. Brinton, Aoniks (*c*, 331). Admiral Fitz-Roy has Oens or Oens-men (*a*, 205–206, 325–326). The commonest form is Ona. It is the name given them by the Yahgans and is derived immediately from the Yahgan *onéçin* (=Tierra del Fuego Island=Onas'+land), *onachaga* (=Beagle Channel=Onas'+channel) (Th. Bridges, *h*, 206; Hyades, *q*, 15, 283).

Ona may be ultimately a corruption of *tsoneka*, *ts'ona'ca*, *tsh'n*, *cho'n*, *chōn* (Furlong, *k;* Lehmann-Nitsche, *d*, 232; Chamberlain, *a*, 95); or perhaps is derived from *on*, a word frequently used by the Onas (Beauvoir, *b*, 55, 202), or else from *onan*, the Yahgan word for north wind (Furlong, *k; r*, 183).

Whether there is any connection between Ona and van Noort's "Enoo" (*b*, 1st ed., 21; Fr. tr., 1610 ed., 15; Commelin, I, 10; de Brosses, I, 299) is very doubtful. The boy captured by van Noort possibly referred to the Onas when he spoke of the gigantic Tirimenen of the land of Coin (ibid.).

Father Falkner was told that the Yacana-cunnee of extreme southeastern Patagonia extended also to the other side of the Strait (111). The identity of this people is discussed in the Author Bibliography under Falkner. Dr. Lehmann-Nitsche (*d*, 229–230, following Falkner) derives the name from the Patagonian *yacana-kön'*, "foot people."

The Rev. Mr. Bridges also used the word Wuas to denote the Onas (*e*, 332).

The Onas, with the exception of a nearly extinct subtribe in the southeast, call themselves Shílk'nam (Lehmann-Nitsche, *d*, 233), Shilkenam^{n} (C. Gallardo, 97), Shelknam, Tshelknam (Beauvoir, *b*, 202), Schelkenam (Cojazzi, 16), Shillkanen (Furlong, *d*, 219), Shilk'anan, Shelk'enum (Furlong, private communication), Shil'k'-

enum, Shilk'enum, Shilkanan (Furlong, *k;* cf., also, *shil'k'enan cho'n, cho'un, cho'wun,* the Ona words for man, ibid.).

The nearly extinct subtribe just referred to are called by the other Onas Haush (pronounced Howsh) (Furlong, *j*, *k*), Hauss (Cojazzi, 100), Haus (Beauvoir, *b*, 171), Hush or Höš' (Skottsberg, *c*, 307–308; *d*, 615). According to Mr. Lucas Bridges, they call themselves Mánekenkn (L. Bridges, *b;* Lehmann-Nitsche, *d*, 233). Dr. Dabbene (*b*, 269) has Manekenkn. The name is apparently the same as Mác-ek, which Dr. Spegazzini used for the Onas whom he met in 1882 (*a*, 16).

In the present paper the name Ona is used to include both the Shílk'nam and Mánekenkn.

TERRITORY

The Onas formerly occupied the whole of the large island of Tierra del Fuego, excepting the shores of Useless Bay and Admiralty Sound, which were intermittently at least frequented by the Alacaluf, and the strip of land between Beagle Channel and the mountain range paralleling it, which the Yahgans inhabited. The Onas were in touch with the Alacaluf in the western part of the island, probably crossing at times to Dawson Island, as the Rev. Mr. Bridges found the Dawson Islanders almost as much Onan as Alacalufan in language and appearance (*b*, June 1, 1883, 139; Feb. 1, 1886, 33; cf. also Oct. 1, 1881, 226; *k*, 234, on N. and E. coast of Onisin the Alacaluf knew the Ona tongue; Lovisato, *c*, 720, citing Whaits). They were likewise in contact with the Yahgans between Beagle Channel and Good Success Bay, trading and intermarrying with them (Th. Bridges, *b*, Mar. 1, 1876, 59; Lovisato, *c*, 720; Martial, 185, 192; Hahn, *c*, 340; Th. Bridges, *i*, quoted in Hyades, *q*, 10), occasionally raiding and hunting into the Yahgan territory of Navarin Island (Furlong, verbal communication; Fitz-Roy, *a*, 205–206, 325–326), and stealing wives from the Beagle Channel Yahgans (Despard, *b*, 717). The Onas made their first appearance at Ushuaia Mission in 1884 (Hyades, *q*, 7), but since then they have been and are frequently seen along Beagle Channel, especially around Harberton.

It is likely enough that in earlier times the Onas may have been in touch with the Tehuelches of the mainland. The fact that they do not use canoes now is not conclusive proof that they never either made use of or borrowed them. Cf. for details on this point Subject Bibliography, under Navigation, pages 195, 196.

SHÍLK'NAM AND MÁNEKENKN RELATIONS

The greater part of the island of Tierra del Fuego is or was occupied, as we have seen, by the Shílk'nam, while the extreme southeastern peninsula—from Sloggett Bay to Polycarp Cove (Furlong, *k*), or from Thetis Bay to Fotbey Bay (Cojazzi, 100), or apparently from Polycarp Cove as far west as Moat Bay (Th. Bridges, *b*, Oct. 1, 1886, 217)—was the home of the Mánekenkn.

Dr. Segers (81) divided the Onas into six subtribes: the Parriquens, Shella, and Uenenke from San Sebastian Bay to Cape Sunday, and the Kau-ketshe, Koshpijom, and Loualks from Cape Peñas to the Straits of Lemaire. These names are, however, according to Mr. Lucas Bridges (Lehmann-Nitsche, *d*, 233), not tribal but local names. Señor Lista's northern and southern Onas are, to judge from the respective habitats and vocabularies he gives, no other than the Shílk'nam and Mánekenkn (Lista, *d*, 82, 144–145).

The Rev. Mr. Bridges (*b*, Oct. 1, 1884, 223; also cited in Hyades, *l*, 718) was the first to state that "the Western Onas scarcely understand the Eastern Onas." It is to his sons, especially Lucas, that we owe most of the published material on the Mánekenkn, although some independent investigation was carried on by Prof. Tonelli (Cojazzi, 100) and Prof. Furlong (*k*). Dr. Fred. Cook mentioned this people in 1900 (*b*, 725), Col. Holdich in 1904 (160), and since then several other writers.

Prof. Furlong gathered six Mánekenkn words, and more recently Dr. Lehmann-Nitsche has published (*d*, 242–276) 97 Mánekenkn words from Mr. Lucas Bridges' manuscript vocabulary. A comparison of this material with the Ona vocabulary of Dr. Segers and with the southern Ona one of Señor Lista shows pretty clearly that both these explorers were in contact in the south with the Mánekenkn. About a dozen words in each list can be identified as Mánekenkn rather than Shílk'nam. Señor Lista's "southern Ona" list is perhaps entirely Mánekenkn.

Further, it is very probable that the earlier voyagers, the Nodals in 1619, Father Labbe in 1711, the members of Capt. Cook's first expedition in 1769, as well as some of the early nineteenth century explorers such as Admiral Fitz-Roy and Mr. Darwin, Admiral Wilkes and others, were really in contact with the Mánekenkn during their brief visits to Good Success and Valentyne Bays, as these bays are situated in what was a few years ago Mánekenkn territory. In one case at least the evidence is somewhat more positive. Sir Joseph Banks (60) gives two words taken from Good Success Bay Indians. One of these words, *ooudá*, "water," is evidently the same as *ootun* the Mánekenkn word for "water" in Mr. Lucas Bridges' vocabulary; the Shílk'nam word is *chooen, chook, chóoen, chow'n;* Señor Lista, it is true, and Dr. Segers both give *oten*, but their vocabularies are, as observed above, largely Mánekenkn (cf. Lehmann-Nitsche, *d*, 250).

Dr. Cojazzi (102–104) and Father Beauvoir (*b*, 171–173) publish vocabularies gathered from a Mánekenkn woman about 35 to 40 years old who had been living since childhood among the Shílk'nam and whites. Both vocabularies appear to be pure or nearly pure Shílk'nam.

Such being our available working material on the Mánekenkn Indians, we may now take up the question of their relations to the Shílk'nam.

Dr. Fred. Cook (*b*, 725) and Dr. Skottsberg (*d*, 615; *c*, 308) look on the Mánekenkn as a cross between the Onas and Yahgans. Dr. Skottsberg also speaks of the Höš' tongue as a fifth Fuegian language (*d*, 614; *c*, 308). Prof. Furlong (*j*; *k*) seems to consider the Mánekenkn as tribally and linguistically distinct from both the Yahgans and Shílk'nam.

There has been, no doubt, a good deal of mingling and intermarrying between these southeastern Foot Indians and the Yahgans. Some of the authorities for this statement have been quoted above. In addition, Sr. Lista thought he recognized traces of Yahgan influence in the physical appearance and language of the Polycarp Cove natives (*b*, 115, 120). Dr. Segers' Ona vocabulary contained some Yahgan words (Lehmann-Nitsche, *d*, 237, citing L. Bridges). Prof. Furlong's old Haush man was married to two Yahgan wives (*k*), while Dr. Skottsberg (*d*, 615; *c*, 308) was told by Mr. William Bridges that this old man was himself only half Haush, his mother having been Yahgan. He looked like a Yahgan, Dr. Skottsberg remarks (ibid.).

In spite, however, of this considerable infusion of Yahgan blood among the Mánekenkn, it is much more probable that they are or were racially akin to the Shílk'nam.

A comparison of the linguistic material kindly put at the writer's disposal by Prof. Furlong and of the words published by Dr. Lehmann-Nitsche with the fairly abundant Shílk'nam lexical data now available shows with reasonable clearness that notwithstanding the many divergences the Mánekenkn speech differs from the Shílk'nam only dialectically. The reader can easily test for himself this conclusion by reference to Dr. Lehmann-Nitsche's comparative Tehuelche-Shílk'nam-Mánekenkn glossary (*d*, 242—276); in about 30 per cent of the cases the Mánekenkn words are similar to the Shílk'nam or Tehuelche, and often identical.

The application of the somatological and cultural criteria of relationship yields similar results, although the available material is rather meager. The Thetis Bay natives described in considerable detail by Sr. Lista (*b*, 126–130) were somatologically and culturally Shílk'nam. The same may be said of Dr. Segers' Onas, some of whom at least were Mánekenkn, and of the natives encountered by the earlier explorers in the Good Success and Valentyne Bays region. Prof. Tonelli (Cojazzi, 100–102) found a few cultural differences, but they are of a very minor character.

Prof. Furlong's Haush informant was quite unlike the Shílk'nam in physical appearance, being "short, thick-set, and about 5 ft. 4 or 5 in. in height" (*k*), but according to Dr. Skottsberg (*d*, 615; *c*, 308) this old man was a halfbreed Yahgan. Prof. Furlong writes (*k*) that "a Haush could not make himself understood to an Ona or a Yahgan by use of the Haush language." This, however, would not necessarily be a proof of more than considerable dialectic difference between the two tongues. In this connection we may recall the Rev. Mr. Bridges' remark cited above, that "the Western Onas could *scarcely* understand the Eastern Onas" (*b*, Oct. 1, 1884, 223).

The evidence at hand, therefore, seems to justify the conclusion that the Shílk'nam and Mánekenkn are both fundamentally of the same racial stock. What somatological differences exist are probably due in great part to Yahgan influence. The cultural differences are negligible but the linguistic are much more pronounced. Whether these latter are the result of differentiation through long isolation, or are to be accounted for on the theory that the Mánekenkn represent an earlier invasion from the mainland, can not be decided in the present state of the evidence.

Ona and Tehuelche Relations

Anthropologists and explorers almost without exception have held and hold the Onas to be near relatives of the southern Patagonian aborigines.

A. LINGUISTIC EVIDENCE

As far as language is concerned practically all who have made actual comparisons between the Onan and Teheulchean tongues have concluded that they are akin. Two notable exceptions are Gen. Mitre (I, 156), who ascribed the lexical resemblance between the two languages to the presence of loan-words acquired by the Onas through communication with the Tehuelches, and the late Prof. Chamberlain, who expressed the opinion (*a*, 89) that "efforts to make out the Onan to be a Tsonekan (Tehuelchean) dialect have not been successful." Prof. Chamberlain was here, however, in all probability basing his statement on Gen. Mitre's, whom he follows very closely in both his articles dealing with Fuegian and Chonoan linguistics. As for Gen. Mitre's theory, first it takes for granted what is probable indeed, but by no means proven, that the Onas have been in direct contact with the Tehuelches in comparatively recent times, and, secondly, the proportion of such resemblances between the Ona and Tehuelche tongues appears to be much too great to be explained on the hypothesis of loan-words. In from 40 to 45 per cent of the cases the Ona words are similar to the Tehuelche, and often identical.

The actual resemblances between the two languages are judged sufficiently clear and numerous to prove linguistic kinship by the following authorities, all or nearly all of whom have made direct and independent studies: Th. Bridges, (*b*, Mar. 1, 1876, 60;[1] Apr. 1, 1880, 74; Oct. 1, 1884, 224; *e*, 332; *g* and *i*, cited by Hyades, *q*, 11; *h*, 200, 203; *j*, 316; *k*, 223); Lista (*b*, 56, 82, 89; *e*, 37); Brinton (*c*, 329); La Grasserie (643–647); Lehmann-Nitsche (*a; b; d*, 233–237); Beauvoir (*a*, 6; *b*, 177–181); C. Gallardo (106); O. Nordenskjöld (*c*, 672; *d*, 434; *e*, 167–168; *g*, 355; *j*, 127); Outes (*d*, 132–133) and Spegazzini (*b*, 239; *c*, 132).[2]

A grammatical comparison can not well be made, as unfortunately very little has been published on Ona morphology, but from a study of the short comparative glossary compiled by Sr. Lista (*b*, 82, 56), of the longer ones by Dr. La Grasserie (643–647) and Father Beauvoir (*b*, 179–181), of another compiled by the present writer for his own use, and particularly of the comprehensive one published by Dr. Lehmann-Nitsche (*d*, 242–276), a conclusion in favor of Ona-Tehuelche linguistic kinship, in spite of many lexical divergences, seems not only justified but unavoidable. The reader is referred especially to Dr. Lehmann-Nitsche's invaluable compilation.

B. SOMATOLOGICAL EVIDENCE

Mr. Darwin (*a*, 1871 ed., 205) and Admiral Fitz-Roy (*a*, 120) noted the resemblance between the Good Success Bay natives and the Patagonians, and since their time other observers who have had an opportunity to compare the two peoples have been struck by the same suggestive resemblance in stature, build, features, and physical appearance. Thus it came to be accepted as beyond doubt that the Onas and Tehuelches are one people.

Since, however, the publication of the results of the limited but important Ona cranial studies by Dr. Hultkrantz (*a* and especially *b*) and Dr. Hrdlička (*a*, in Dabbene, *b*, 283) the older theory has been questioned more or less. These studies apparently show that the Onas are not brachycephalic, as had been expected, but instead vary from mesaticephalism to dolichocephalism (Hultkrantz, *b*, 131, 167; Hrdlička, loc. cit.; cf. also Rivet, 257).

On the premise that the modern Tehuelches are brachycephalic, most recent writers who touch on the relations of the Onas and Tehuelches have been inclined to adjudge the former more nearly akin to the *ancient* Tehuelches (Hultkrantz, *b*, 163–164; Laloy, *b*, 404;

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[1] The Rev. Mr. Bridges was the first definitely to note this linguistic similarity.

[2] Cf. also: Bove, *a*, 789; *b*, 133; *c*, 124; *d*, *Arch.*, 288; Benignus, 229; Keane, *b*, 431; *c*, 42; Krickeberg, 140; Lovisato, *b*, 131–132; Martial, 185. A good many of the passages referred to in the text and in the present note are quoted in Lehmann-Nitsche, *d*, 234–236; and La Grasserie, 643–647. Dr. Brinton's later theory (*e*, 252–253) that the Ona tongue is more nearly related to the Yahgan is explained by the fact that Dr. Segers' vocabulary which he used contains many Yahgan words (L. Bridges, cited by Lehmann-Nitsche, *d*, 236–237).

Joyce, 241–242) or to one or more of Dr. Verneau's earlier Patagonian types (Dabbene, *b*, 279–280).

Dr. Hrdlička, however, informs me that the *undeformed* Tehuelchean skull varies like the Onan from mesaticephalic to dolichocephalic, at least in the majority of cases (cf. also Verneau, *b*, 62, 66–67, 83–84 and passim).

Dr. Rivet also cites as points of Ona-Tehuelche resemblance "la haute stature avec l'augmentation corrélative de la capacité crânienne et l'allongement très notable de la face" (257). Dr. Hultkrantz (*b*, 164) states that among the salient characters of the old Patagonian skulls Dr. Verneau mentions "die hervorspringende Glabella, die kurzen, starken Supraorbitalwülste und das breite, hervorragende Kinn, Merkmale, die auch für meine Onaschädel typisch sind."

Both investigators likewise found certain resemblances between the Onas and Canoe Indians. Dr. Rivet, who, it may be recalled, restudied three of the Ona crania which Dr. Hultkrantz describes, mentions in particular "la forme relativement surbaissée de la voûte et la leptorhinie" (257). Dr. Hultkrantz says (163): "Erinnere ich hier nur an die ovale Gestalt des Schädeldaches mit den grossen Scheitelhöckern und der relativ schmalen Stirn, die charakteristische Dachform der hinteren Frontal- und der vordern Parietalgegend, die starken aber kurzen Supraorbitalwülste, die breite, eckige Form des Gesichts u. s. w."

"Andererseits" he adds (ibid.) "scheinen mir ziemlich bedeutende Unterschiede zwischen den Ona und den übrigen Feuerländern zu bestehen. Der Schädel ist z. B. mehr dolichocephal, die Stirn weniger fliehend und sowohl absolut als relativ höher und breiter. Die Dachform der hintern Stirn- und der vordern Scheitelregion ist weniger ausgesprochen u. s. w. Dazu kommt noch die von allen Reisenden hervorgehobene grössere Statur und etwas andere Körperproportionen." He concludes that all three Fuegian tribes, while much differentiated, "ziemlich nahe verwandt sind."

The theory that the Onas represent a mixed Patagonian and Fuegian people (Rivet, 257; Outes, *a*, 269–270; cf. also Hultkrantz, *b*, 164 and Dabbene, *b*, 280) seems best to account for the above points of resemblance and difference. But it must be borne in mind that the Onan evidence is so far very meager.

At any rate it appears to be generally recognized that the Onas are related somatologically to the Patagonians, whether the modern Tehuelches or, as far as we are justified in using the term, the "ancient" Patagonians.[1]

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[1] Cf. also in favor of Ona-Tehuelche kinship: C. Gallardo, 106; Deniker, *c*, Fr. ed., 656–657; Furlong, *d*, 219; Haddon, *c*, 113; Krickeberg, 140; C. Martin, *d*, 365, 383; Moreno, *d*, 578–579; Segers, 63; Siemiradzki, 129, 131; Sievers, 87, 327; Skottsberg, *c*, 306; Weule, 51.

C. CULTURAL EVIDENCE

In the field of culture the Onas have much in common with the Yahgans and Alacaluf, partly as a result of mutual borrowing, but also much that distinguishes them from the other Fuegian tribes. Among these distinctive cultural elements are some which they share with the Tehuelches. Such are the use of the child's cradle and the custom of arm tattooing—neither found among the Yahgans or Alacaluf. The Ona skin garments are much longer and more elaborate than the other Fuegians' and are very like the Tehuelches' in length, shape, and number. The Onas, like the Tehuelches, do not go nude—as do the other Fuegians so commonly—except when hunting, wrestling, etc. The Ona skin windshield contrasts structurally with the other Fuegians' beehive wigwam and bears a suggestive resemblance in structure to the more elaborate Tehuelche skin tent. The Tehuelches call their tents *kau* (Lehmann-Nitsche, *d*, 256), the Onas their huts *taki* (Gallardo, 365, southern Onas, 243), *ktai* (=*kau*+*tai* =wigwam+small, Beauvoir, *b*, 48), *t'i'i* (Furlong, *k*), but also *kau* or *kaw* or *kauwy* or *kauyáni* (Beauvoir, *b*, 39–40), *kaué* or *kauyani* (Gallardo, 365, northern Onas, 243), *kauw* (Segers, 69), *kau* (Lista, *b*, 145) *cow'ie* (=house, Furlong, *k*). The Ona bow and arrow shows considerable affinity with the earlier Tehuelchean.[1]

Dr. Gallardo (104–105) calls attention to certain cultural differences between the Onas and Tehuelches. He instances: (1) The Tehuelche skin garments worn with the fur inside and ornamented with polychrome designs as against the Ona skin robe worn with the fur outside and colored red without designs; (2) the Tehuelche women's tresses contrasting with the Ona women's bangs; (3) the Tehuelche flexed burial versus the Ona supine posture. The list could be much extended, as, for instance, the Tehuelche fire drill versus the Ona flint and pyrites.

Such cultural divergences, however, would be expected where, as the linguistic evidence shows, the two peoples if once united have been apart for many generations and perhaps many centuries. Moreover, while the culture of the Onas has undoubtedly been to some extent modified through their contact and intermarriage with the Yahgans and Alacaluf, that of the southern Patagonians has been profoundly modified, especially since the middle of the eighteenth century, by Puelchean and Araucanian cultural influences (Outes, *a*, 271, 427, 429, 476, and passim).

The cultural differences between the Onas and Tehuelches are neither few nor slight, but the chasm was much narrower in the days of Magellan and Ladrillero, and it seems not too rash to interpret the identities above noted as survivals from an earlier common cultural ancestry, especially if we consider them in conjunction with the somatological and linguistic resemblances.

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[1] For further details on each of the cultural features just enumerated see Subject Bibliography, under Culture.

From the foregoing linguistic, somatological, and cultural evidence, we may fairly conclude that the relationship between the Onas and Tehuelches, although not as close as is sometimes supposed, is nevertheless established as real. The Onas must have parted company with their cousins of the mainland many generations and probably many centuries ago, or else both have descended from a common stock now extinct. The Onas have apparently remained fairly stationary in culture, while the Tehuelches have undergone radical changes through contact with their northern neighbors.

The Onas are said to have a tradition that they came afoot from a far country of great prairies and that a great cataclysm opened up the Strait of Magellan and so prevented their return (Beauvoir, *b*, 178, 201–202). Whether this tradition has back of it a foundation in fact or whether the Onas on the contrary reached their present habitat in times posterior to the formation of the Strait can not be decided even probably in the present state of the evidence.

Present Condition of Onas

The Onas were formerly much more numerous than they now are. Earlier estimates differ very much. Sr. Popper came into contact with about 600 Onas on his second expedition in 1891 (*d*, 162) and estimated their total number at about 2,000 (ibid.). Dr. Gasperi was informed by Mr. Lucas Bridges in 1912–13 that there were about 300 survivors of the tribe, while the Salesians' estimate of 1909–1911 was 350 (Cojazzi, 16).

The Onas have been outrageously treated by many of the white settlers, herders, and gold seekers who began to invade their territory in the seventies and eighties of the last century. Then, too, internal feuds have brought down many victims; Mr. Lucas Bridges, in a letter dated February 11, 1899, and quoted by Mr. Young (1900 ed., 61; 1905 ed., 66), states that there are few Ona men over 30 years of age who have not killed one of their own people in revenge. These and other causes have more than decimated this interesting tribe (cf. Gasperi).

They have been almost entirely driven from the northern half of their former domain. A number work on the ranches of the Bridges brothers; more are at Rio Grande, Lake Fagnano, and Dawson Island missions; the remainder are scattered over the territory south of the Rio Grande.

The nearly extinct subtribe, the Mánekenkn, were formerly fairly numerous, to judge from their possession of a distinct dialect and from the accounts of Sr. Lista, Dr. Segers, and the Rev. Mr. Bridges, as well as from those of the earlier explorers. Mr. Thomas Bridges, for instance, mentions a party of 38 "Eastern Ona" men with their wives and children (*b*, Oct. 1, 1886, 218). The only survivors at present seem to be the woman then about 37 years old investigated by Prof. Tonelli (Cojazzi, 100) and a family near Harberton. This family consisted of an old man who was a halfbreed Mánekenkn-Yahgan (Skottsberg, *c*, 308; *d*, 615) or Mánekenkn-Shílk'nam (Lehmann-Nitsche, *d*, 233), and his two daughters (Skottsberg, *d*, 615; Cojazzi, 100). His former wife, a full-blooded Mánekenkn (Lehmann-Nitsche, *d*, 233; Skottsberg, *c*, 308) had died before Dr. Skottsberg's visit in 1908. Prof. Furlong (*k*) found, also in 1908, an old Mánekenkn man named Pelota at Harberton, apparently the same one, but this native had two Yahgan wives and one halfbreed son. Prof. Furlong was informed in 1912 that there were five surviving Mánekenkn (*k*).

PAST AND FUTURE OF FUEGIAN INVESTIGATIONS

Early Writers and Explorers

The second of the following lists contains the names of the leaders of expeditions prior to 1800 which encountered Fuegian or Chonoan natives, and the dates at which encountered. The first gives the names of the early writers (exclusive of collections of voyages) whose works contain information on the same natives, and the dates when written or published. The letters, C, A, Y, S, M, stand for the respective tribes, Chonos, Alacaluf, Yahgans, Shílk'nam, Mánekenkn, probably or certainly seen or described.

WRITERS TO 1800

Oviedo, 1557, A; Góngora Marmolejo, 1575, Chilotans (and C); Mariño de Lovera, Chilotans; Acosta, 1590, A; Olaverria, 1594, C.

Herrera, 1601–1615, A; Argensola, 1609, A, S; Purchas, 1613; Laet, 2d ed., 1630, A, Y, S, M; Brouwer, 1646, Chilotans (and C); Ponce de Leon, 1644, C; Ovalle, 1646, C; Montanus, 1671; Del Techo, 1673, C, A?; Rosales, 1674, ca., C, A.

Nyel, 1704, M; Rogers, 1726; Labarbinais, 1728; Pietas, 1729, C; Olivares, 1736, C; Lozano, 1754–55, C; Beranger, 1773, C; Falkner, 1774, S?; Molina, 1776, 1782, 1787, C; Alcedo, 1786–1789; Ascasubi, 1789, C; González de Agüeros, 1791, C.

EXPLORERS TO 1800

Magellan, 1520, A or S; Loaysa, 1526, A; Alcazaba, 1535, A; Ulloa, 1553–54, C, A; Ladrillero, 1557–58, A; Cortés Hojea, 1557–58, A; Drake, 1578, A; Sarmiento, 1579–80, A, S; Hernandez, 1581, A; Cavendish, 1st, 1587, A; Chidley-Wheele, 1590, A; Cavendish, 2d, 1592, A; Hawkins, 1594, A; de Weert-de Cordes, 1599–1600, A; van Noort, 1599–1600, A.

Venegas-Ferrufino, 1609, C; Venegas-Estevan, 1612–13, C; van Speilbergen, 1615, A; Nodals, 1619, M; L'Hermite, 1624, Y, (M?); Montemayor, 1641, C; Brouwer, 1643; Narbrough-Wood, 1670, A; Bart. Gallardo, 1674–75, C; de Vea, 1675–76, C; Sharp, 1681, A; La Guilbaudiere, 1688 (–96), A; de Gennes, 1696, A; Labat, Du Plessis, Beauchesne (Villefort), 1699, A.

Labbe, 1711, M; Frezier's informants, 1712–13, Y?; d'Arquistade, 1715, Y; Clipperton, 1719, A; Anson, 1741, C; the *Wager's* crew (Byron, A. Campbell, Bulkeley and Cummins, author of Affecting Narrative, etc.), 1741–42, C, A; Byron (and anon. author of "Voyage, etc."), 1764–65, A; Duclos-Guyot, 1765–66, A; García, 1766–67, C, A?; Wallis, 1767, A; Bougainville, 1768, A; Machado, 1768–69, C; Jas. Cook, 1st (Banks, Parkinson, author of Journal of . . . Endeavor), 1769, M; Jas. Cook, 2d, (G. Forster, J. R. Forster), 1774, M and Y or A; Marin-Real, 1778–89, C; Menendez-Bargas, 1779–80, C; de Córdoba, 1st, 1786, A; Moraleda, 1786–1788, 1792–1796, C; de Córdoba, 2d, 1788–89, A.

History of Investigation

The name that stands out most prominently in the history of Fuegian investigation is that of the Rev. Thomas Bridges. His researches were confined in the main to Yahgan culture and language, but in addition he became sufficiently familiar with the other two Fuegian peoples to establish for the first time definitely the general tribal relations in the Magellanic archipelago.

YAHGANS

From 1624 when the Yahgans were first visited by L'Hermite until 1858 when the first group of Yahgans came to Keppel mission in the Falklands little appreciable progress in Yahgan anthropology was made, if we except Admiral Fitz-Roy's discovery of the existence of two distinct languages in the southern Fuegian archipelago. The Yahgans were visited successively by d'Arquistade in 1715, by Weddell in 1823–24, by the Beagle expeditions in 1829–32, by the Wilkes and Ross expeditions in 1839 and 1842, respectively, and by Capt. Snow and other English missionaries in the fifties.

The modern study of the Yahgans and their language really begins with the arrival of the missionary party under the Rev. Mr. Despard at Cinco-Mai Harbor, Navarin Island, in the spring of 1857 (Despard, *b*, 718). By the end of 1858 he had gathered nearly 1,000 Yahgan words, and in 1863 published a few notes on Yahgan grammar.

But, if the Rev. Mr. Despard was the pioneer in the field of Yahgan linguistics, it is to the genius and labors of a successor, the Rev. Thomas Bridges, that we are indebted for most of what we know of the Yahgan tongue. His remarkable studies, begun in the late fifties or early sixties, culminated in the compilation of his large dictionary completed in 1879, the translation of his three New Testament books in 1881–1886, and the publication of his larger grammar in 1893. Other papers from his pen treated nearly the whole field of Yahgan culture.

The more important new results of the Italo-Argentinian expedition in 1882 and the French Cape Horn expedition in 1882–83, with the subsequent studies by Drs. Hyades and Deniker, Mantegazza and Regalia, and Sergi, were in the field of somatology.

These practically closed the cycle of Yahgan studies. Since then no important new developments have taken place. All three departments of Yahgan anthropology are as well known as we could reasonably expect, although there is of course probably a good deal that may yet be discovered about this passing race.

ALACALUF

The fires seen by Magellan's expedition in 1520 were from Onan or Alacalufan camps, but the Alacaluf themselves were first observed not until six years later by the Loaysa expedition, nearly a century prior to the first discovery of the Yahgans.

The first detailed accounts of the Patagonian channel Alacaluf, brief though these accounts are, are contained in the narratives of Ladrillero's and Cortés Hojea's expedition in 1557–58. A few new data came to light around the middle of the eighteenth century subsequent to the shipwreck of the *Wager* and to Father García's missionary journey to the Guaianecos Islands. Some 70 years after the García expedition, the results of Admiral Fitz-Roy's studies were published.

In the field of culture little has been added to our knowledge since the days of Admiral Fitz-Roy, although excellent original accounts have been published following Dr. Coppinger's investigations in 1879-80 and Dr. Skottsberg's recent expedition in 1908.

All of the above accounts are based on casual meetings or on series of such meetings. A thorough detailed study of these people, based on extensive investigation covering a period of at least a year, is a great desideratum.

Some scores of explorers and travelers have personally observed and described the Alacaluf of the Strait of Magellan, but hardly more than casually. An exhaustive study of them by investigators cognizant of their language and living among them in their native channels has yet to be made.

The accounts of Drake's expedition in 1578, of de Weert's, de Cordes', and van Noort's in 1599–1600, and of Beauchesne's in 1698 furnish some data on the more obvious phases of culture, and to La Guilbaudiere (1688–1696) we are indebted for the earliest vocabulary. Between 1764 and 1768 the Alacaluf of the Strait were studied successively by Byron, Duclos-Guyot, Wallis and Bougainville, and in 1786 and 1788–89 by de Córdoba. The most satisfactory of all the older accounts of the Alacaluf are those of Bougainville, Duclos-Guyot, and especially of de Córdoba.[1]

Further studies were made by the *Beagle* expeditions in 1826–1832 by Dr. Coppinger in 1879–80 and by a number of later explorers.

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[1] See, however, Vargas Ponce's original narratives rather than the translations.

Alacalufan cultural anthropology is, however, in about the same condition it was in just after the Fitz-Roy expeditions. It may be added that only the material culture of the Alacaluf has been at all adequately studied.

Much more has been done in the department of somatology. A considerable literature sprang up as a direct result of the exhibition of the Hagenbeck troupe in Europe. Most of the available Alacalufan material is summed up in Dr. R. Martin's monograph published in 1893.

There are extant some seventeen vocabularies of the Alacalufan tongue, beginning with La Guilbaudiere's of between 1688 and 1696 and ending with Dr. Skottsberg's of 1908. The largest published vocabulary, Father Borgatello's, contains less than 600 words, while 10 of the lists contain only 50 or less words. The Rev. Mr. Bridges' 1,200-word vocabulary has never been published. Of Alacalufan grammar we have no details at all.

CHONOS

The Chonos were first encountered by the Ulloa expedition in 1553 and first described by Goicueta, the chronicler of the Cortés Hojea expedition of 1557–58. Further accounts begin in 1609–1613 with the advent of the Jesuit missionaries to Chiloé and the Guaitecas Islands—accounts chiefly accessible in the writings of Fathers Del Techo, Rosales, Lozano, and Olivares. In the next century some few further details came to light as a result of the *Wager's* shipwreck in 1741 and Father García's expedition in 1766–67. Since this last date the history of Chonoan investigation has been practically a blank.

Much less is known of the Chonos than of the Alacaluf. Of even their material culture only meager details have come down to us, and of their language not one word. A little more is known of their somatology, thanks to the discovery of a few skulls, chiefly of Guaitecas Islanders.

ONAS

To Sarmiento (244–246; *An. hidr.*, VII, 519–520) belongs the honor of having first discovered the Onas in 1580, the name Gente Grande Bay remaining to this day as a reminder of the event. Forty years later, in 1619, the Nodals saw the Onas, not unlikely of the Mánekenkn subtribe, at Good Success Bay. The accounts, however, of both Sarmiento and the Nodals, as well as those of later observers, one of L'Hermite's officers perhaps in 1624, Father Labbe in 1711, and the members of the first and second Cook expeditions in 1769 and 1774, give very meager details, chiefly on physical appearance and material culture.

Several other voyagers saw the Good Success Bay natives in the early nineteenth century, but the real history of Ona investigation began only in 1775 when the Rev. Thomas Bridges first encountered the Onas on a visit to Good Success Bay. Expeditions to the interior of the island under M. Pertuiset in 1873–74, Sr. Serrano Montaner in 1879, and later under Capt. Bove developed little new information.

The modern period in the study of the Onas began in earnest with the linguistic studies of Mr. Thomas Bridges in 1875 (*b*, Mar. 1, 1876, 60) and his removal to Harberton in 1886, with the expedition under Sr. Lista in 1886–87, with Dr. Segers' further studies embodied in his important 1891 article, and with the founding of the Salesian missions among the Onas in 1892.

Since the opening of the present century great progress has been made in the fields of Ona culture and language, thanks above all to the sons of the Rev. Mr. Bridges, to the Salesian fathers, especially Father Beauvoir, to the Argentinian scientists, particularly Drs. Gallardo and Lehmann-Nitsche, and to Prof. Furlong.

The Bridges brothers' intimate knowledge of Ona culture and language has been extensively drawn upon by nearly all recent investigators, while for other important contributions, above all to Ona linguistics and folklore, we are indebted to the Salesian missionaries.

Ona culture has been almost exhaustively treated by Dr. Gallardo, while extensive vocabularies have been compiled by Mr. Lucas Bridges and Father Beauvoir. In the department of Ona grammar very little has been published.

Ona somatology lags behind markedly. A good beginning has been made, however, especially by Drs. Hultkrantz, Hrdlička, and Outes.

From all the foregoing it is seen that the Yahgans alone of the Fuegian peoples have been investigated with anything approaching thoroughness. Ona culture and Alacalufan material culture are well enough known, Chonoan culture very slightly. Of the Chonoan language we possess not one word, of the Alacalufan we have about six hundred words, and of the Onan several thousand. A beginning has been made in the study of Ona grammar, but so far no details at all are accessible on Chonoan or Alacalufan grammar. Alacalufan somatology has been fairly well studied, Onan and Chonoan quite inadequately.

The Future of Fuegian and Chonoan Investigation

How can the lacunæ be filled? The acquisition of further material on the Onas should be comparatively easy. We may expect detailed information on Ona grammar from the Salesians and particularly from the Bridges brothers. Brother Xikora's catechism or prayer book should give some clue to Alacalufan morphology, and perhaps we may hope for a grammatical outline from him. Further studies, too, among the Alacaluf by the Salesians may throw more light on this tribe's social, moral, and religious culture.

Our chief hope for definite information on the perhaps extinct Chonos would seem to lie in the recovery of Fathers Ferrufino's and Estevan's manuscripts. Then, too, it is quite possible that some descendants of the Lincoman family seen by Capt. E. Simpson in the Guaitecas Islands 40 years ago may still be living there or elsewhere. Finally, linguistic investigation among the modern Gulf of Peñas natives may clear up Chonoan linguistic relations; some descendants of the true Chonos might be there, for even as late as the second half of the eighteenth century Chonos were encountered in the Guaianecos Islands in fairly good numbers by Father García.

At any rate the Gulf of Peñas region and the channels to the south of it are the territory most in need of investigation—investigation, as Dr. Skottsberg suggests, extending over at least a year.

Three other desiderata call for special mention: (1) There is needed a thorough comparative study of Araucanian and Yahgan grammar. The raw material is easily accessible. Dr. Darapsky made a beginning in this line, but the clues he discovered should be followed up and either confirmed or proven valueless. (2) More exhaustive studies of the kinship and marriage relations, of the mythology and religion of all the Fuegian peoples are needed. Except to some extent in Ona mythology and folklore very little has been accomplished in these difficult fields of research. The considerable mass of detached data on Fuegian religious and quasi-religious culture suggests strongly that we have by no means gotten to the bottom of Fuegian religion. Perhaps, too, a better knowledge of the initiation rites may throw a greater light on this obscure subject than we now have. (3) Excavations among the abundant kitchen middens from Elizabeth Island and the Straits of Lemaire to the Chonos Archipelago would undoubtedly give us a clearer vision of the past of the Fuegian and Chonoan peoples. Apart from the investigations in this field by Drs. Lovisato and Coppinger and by Prof. Furlong almost nothing has been done. A kindred line of research would be the investigation and excavation of caves and grottos, which are or were used by the Alacaluf and Chonos as burial places.

WEBB E 1

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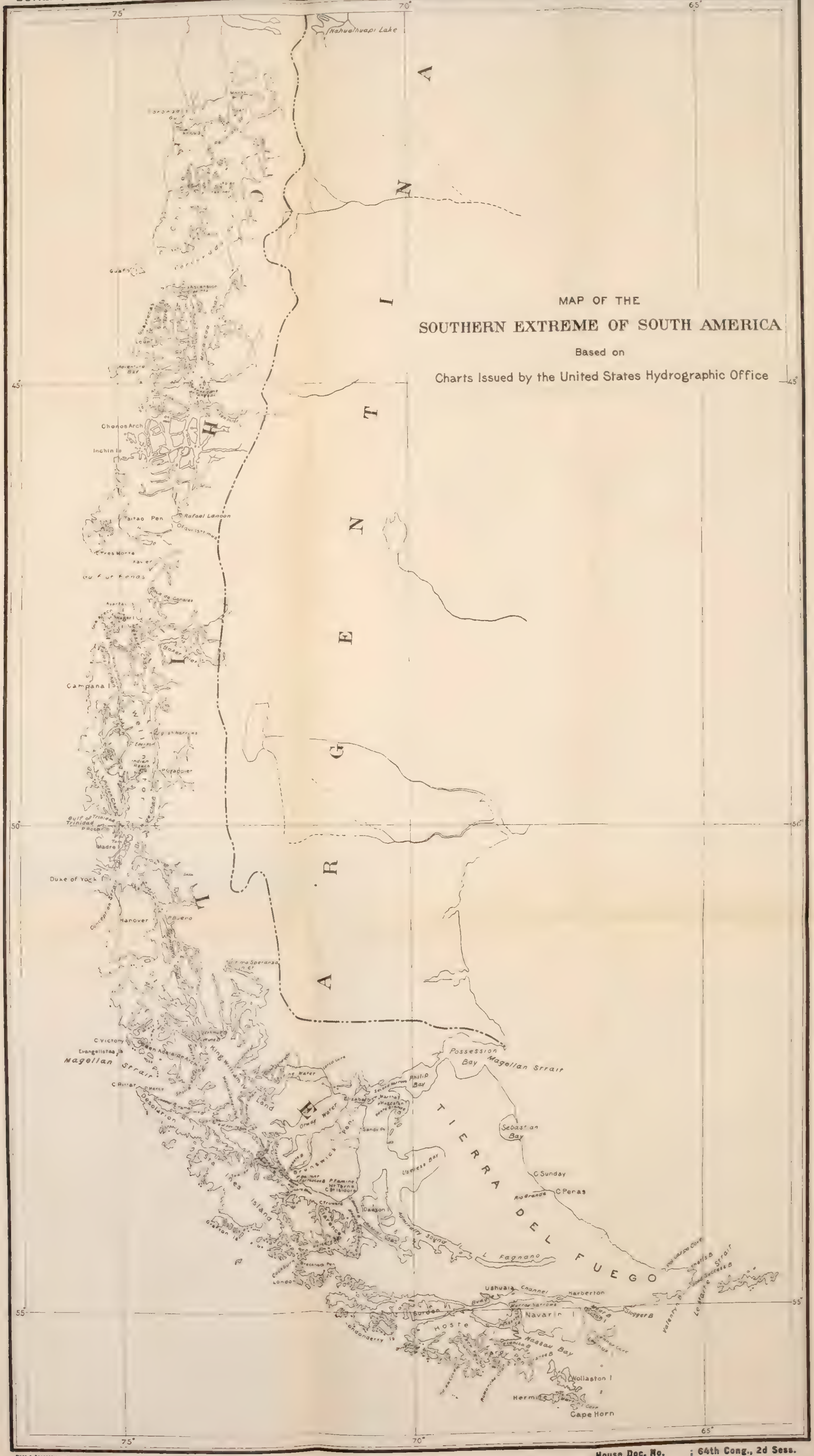

MAP OF THE

SOUTHERN EXTREME OF SOUTH AMERICA

Based on

Charts Issued by the United States Hydrographic Office

75°
70°
65°
45°
50°
55°
Nahuelhuapi Lake
A R G E N T I N A
C H I L E
Guafo I.
Chonos Arch.
Inchin I.
Taitao Pen.
Rafael Lagoon
Tres Montes
Gulf of Penas
Campana I.
Wellington I.
Indian Reach
Gulf of Trinidad
Trinidad Ch.
Madre
Duke of York I.
Concepcion Str.
Hanover
C. Victory
Evangelistas Is.
Magellan Strait
C. Pillar
Desolation I.
King William IV Land
Otway Water
Brunswick Pen.
Clarence Island
Dawson I.
Admiralty Sound
Useless Bay
Philip Bay
Possession Bay
Magellan Strait
Sebastian Bay
C. Sunday
Rio Grande
C. Penas
T I E R R A D E L F U E G O
L. Fagnano
Ushuaia
Beagle Channel
Harberton
Navarin I.
Hoste
Londonderry Is.
Nassau Bay
Slogget B.
Valentyn B.
Le Maire Strait
Good Success B.
Wollaston I.
Hermite
Cape Horn

AUTHOR BIBLIOGRAPHY

PREFATORY NOTES

The bibliography includes the sources for the study of the Onas, Yahgans, Alacaluf, and Chonos. Those for the Tehuelches might have been included, but to have done so would have carried the writer too far afield.

Throughout anthropological and kindred literature occur hundreds of brief second-hand notes on the Fuegians. The bulk of these references were too unimportant to justify their inclusion in the present bibliography. But all first-hand sources, however brief and unimportant, that have come to the writer's attention, have been included, as have also those second-hand sources which sum up a considerable portion of the field or else throw some light on Fuegian and Chonoan anthropology by discussion or suggestion.

Where the writer has been unable to consult and review personally any article or book, he has stated the bibliography or other source whence the title has been taken, together with what dependable data regarding the reference he could gather.

The great majority of first-hand observers have had at most a few hours of contact with the natives while en route through the archipelago. Such accounts have been characterized as based on "casual meetings." They are chiefly of value for material culture.

The name "Channel Alacaluf" or "Channel Indians" has been used to denote the canoe-using Indians of the West Patagonian channels between the western mouth of the Strait of Magellan and the Gulf of Peñas.

The present bibliography being intended as a practical or working guide, some of the data usually given in a technical bibliography have been omitted.

From the enormous mass of literature dealing with the history of early exploration in the Magellanic archipelago, those narratives, editions, and translations—originals preferred where accessible—have been included which would be more readily available to the student with ordinary library facilities. No attempt has been made to exhaust this field. Further data regarding editions and translations can be found in bibliographical works like those of Tiele, Sabin, and Medina. Those early narratives, like LeMaire's, for instance, which, however important to the geographer or historian, contain no information on the natives, have been omitted.

In many cases the later editions or the translations of original narratives have been abridged. Where this abridgment has involved an abbreviation of the Fuegian anthropological material, the fact is usually noted; but in most of the abridgments and abstracts the anthropological data are given either in full or with only slight omissions.

It is perhaps superfluous to state that works have been classed as "important" or "unimportant" purely from the viewpoint of the student of Fuegian anthropology.

A word regarding maps: A good map of the whole district is indispensable. The present writer has used the following four charts obtained from the United States Hydrographic Office, Washington, D. C.: No. 1315, Coast of Chile, Valdivia to Cape Tres Montes, June, 1892; no. 2243, Coast of Chile, Gulf of Peñas to Magellan Strait, Sept., 1905; no. 454, South extreme of South America from Cape Horn to the Magellan Strait, sheet II, Western part, 1873; no. 453, ditto, sheet I, Eastern part, 1873. Except for the interior and east coast of Tierra del Fuego Island, these maps meet all requirements of anthropological study for the territory covered.

Aa, Pieter van der, *ed.*

Naaukeurige versamelung der gedenk-waardigste zee en land-reysen na Oost en West-Indiën, 28 vols., Leyden, 1707 [1706–]; 8 vols., ibid., 1727 [1706–1727].

Contains (vol. XVIII; 2d ed., vol. V) Pretty's account of Drake's voyage, and (vol. XX; 2d ed., vol. V) Pretty's and Knivet's narratives of Cavendish's voyages.

Acosta, José de

Historia natvral y moral de las Indias, Seuilla, 1590; Ital. tr., Venice, 1596; Fr. tr., Paris, 1598; Dutch tr., 2d ed., Amsterdam, 1624; Engl. tr., London, 1604; Hakl. soc., vols. LX–LXI, London, 1880.

Contains (bk. 3, ch. 13) very brief remarks on the natives inhabiting the northern and southern shores of the Strait; not important.

Adam, Quirin François Lucien

Grammaire de la langue jâgane. (In *Revue de linguistique et de philologie comparée*, Paris, 1884; XVII, 295–322, 1885; XVIII, 10–26, 160–173; reprint, ibid., 1885.)

An important treatise on Yahgan grammar, fuller than Dr. Garbe's study; based on Dr. Garbe's work and on the Rev. Thomas Bridges' Yahgan translation of the Gospel of St. Luke.

Adelung, Johann Christoph *and* **Vater, Johann Severin**

Mithridates, oder allgemeine Sprachenkunde, 4 vols., Berlin, 1806–1817.

Contains (3. Th., 2. Abt., pp. 391–3) an unimportant brief description of the Fuegians, based chiefly on Laet, Hervás, and J. R. Forster.

Affecting narrative of the unfortunate voyage and catastrophe of His Majesty's ship *Wager*, London, 1751

Contains (especially pp. 30–31, 45–46, 96–97) some of the same data on the Chonos and Fuegians that Bulkeley and Cummins give.

Agüeros

See González de Agüeros.

Alcazaba, Simon de. 1535

See Juan de Mori, de Brosses.

Alcedo, Antonio de

Diccionario geográfico-histórico de las Indias occidentales ó América, 5 vols., Madrid, 1786–1789; Engl. tr., 5 vols., London, 1812–1815.

Short, unimportant, and not very reliable account of Fuegians under "Fuego, Tierra del" (II, 168–71; tr., II, 121).

Alvarez, J. S.

En el mar austral, Buenos Aires. (Reference from Dabbene.)

Andersson, Johan Gunnar, Nordenskjöld, Otto *and others*

Antarctica: or Two years amongst the ice of the south pole, London-New York, 1905.

Chapters 4 and 5 of part 2 (pp. 366–91), from the pen of Dr. Andersson, contain passim a good deal of valuable material on some phases of the psychical culture of the Onas, among whom he spent more than a month in Sept.-Oct., 1902. The author made a journey afoot with Ona guides from Harberton to Lake Fagnano and return.

Andree, Richard

Die Anthropophagie, Leipzig, 1887.

On p. 90 are given the views of Fitz-Roy, Darwin, Snow, Marguin, and Hyades on the question of Fuegian cannibalism.

Angelis, Pedro de, *ed.*

Coleccion de obras y documentos relativos á la historia antigua y moderna de las provincias del Rio de la Plata, 6 vols., Buenos Aires, 1836–37.

Vol. 1 contains a Spanish translation of Falkner's Description of Patagonia.

Anrique R., Nicolas *and* **Silva A., L. Ignacio**

Ensayo de una bibliografía histórica y jeográfica de Chile, Santiago de Chile, 1902.

Contains 2,561 titles of books and articles, of which a good proportion are of anthropological interest, in the chief modern languages; annotations or criticisms are exceptional. There are some inaccuracies, but relatively few, considering the short time, only 66 days, at the disposal of the compilers. The list includes many references not found in other bibliographies of Chile.

Anson, George, *Lord.* **1741**

See Richard Walter, Pascoe Thomas.

Anuario de la prensa chilena, publicado por la Biblioteca nacional, Santiago de Chile, annually since 1886.

Gives lists of the books deposited in the library under the law of 1872, and from 1891 includes books by Chilean authors or relating to Chile published in other countries. Not annotated.

Anuario hidrográfico de la marina de Chile, Santiago-Valparaiso, 1875–1912, vols. I–XXVIII.

Contains the following early and modern original narratives or translations thereof bearing on Fuegian and Chonoan anthropology: E. Simpson, Juliet, 1875, vol. I; Goicueta, Ulloa, Ibar S., J. M. Simpson and Chaigneau, *a*, 1879, vol. V; Ulloa, Pretty, *a*, tr., Ladrillero, J. M. Simpson and Chaigneau, *b*, Serrano M., *a*, 1880, vol. VI; Mori, Sarmiento, 1881, vol. VII; B. Gallardo, de Vea, Serrano M., *b*, Hyades, *g*, tr., 1886, vol. XI; Moraleda, 1887–8, vols. XII–XIII; Machado, García, *a*, d'Arquistade, tr., Martial, tr., 1889, vol. XIV; Brouwer, tr., 1892, vol. XVI; Gajardo, 1905, vol. XXV; Pacheco, *a*, 1907, vol. XXVI; Whiteside, 1912, vol. XXVII; Morales, Pacheco, *b*, 1912, vol. XXVIII.

A great deal of the above material is not available elsewhere. The *Anuario* also contains passim many valuable maps, and considerable first-hand information on fauna, flora, climate, geology, and geography.

Arctowski, Henryk

Voyage d'exploration dans la région des canaux de la Terre de Feu. (In *Bull. Soc. roy. belge de géogr.*, Bruxelles, 1901, XXV, 33–62; reprint, ibid., 1902.)

Dr. Arctowski spent a little more than a month in Fuegia in 1897–98 as geologist and meteorologist of the *Belgica* expedition, 1897–1899. His article is chiefly of value for the Ona vocabulary (pp. 61–62) of 139 words, phrases, and sentences, gathered at Dawson Island with the aid of one of the Salesian missionaries from a young Ona boy who understood Spanish, and who had been to Europe.

Argensola, Bartolomé Leonardo de

Conqvista de las islas Malvcas, Madrid, 1609; Fr. tr., 3 vols., Amsterdam, 1706; Engl. tr. in Stevens, vol. I; narrative of Sarmiento's voyage quoted in full in Iriarte's ed. of orig. jour., pp. xxxix–lviii, and summarized in de Brosses, I, 199–219, and in Laet, bk. 12, Lat. and Fr. tr., bk. 13.

Argensola gives (bk. 3, pp. 109–26) a long account of Sarmiento's voyage in 1579–80. This abstract contains approximately the same anthropological data as does the original journal, but toward the end relates a few fabulous details not found in the latter.

Arquistade, Joapchin d'

Breve et demontrée relation de la nouvelle découverte d'un grand enfoncement ou baye en la coste occidentale de la Terre-de-Feu . . . voyage aus années 1714, 15, 16 et 17 . . . navire le Sainct-François . . . (In Martial, Mission du cap Horn, I, 266–269; extr. in Hyades, *l*, pp. 723–725; Span. tr. in *An. hidr. mar. Chile*, Santiago, 1889, XIV, 534–537.)

Next to L'Hermite's, the earliest account we possess of the Yahgans. D'Arquistade's brief description of their customs and material culture is based on personal observation during one day spent with the natives at Orange Bay in 1715.

Ascasubi, Miguel

Informe cronológico de las misiones del reino de Chile hasta 1789. (In Gay, Documentos, I, 300–400.)

Contains on pp. 315-316 a few notes on the history of the mission Chonos.

Aspinall, Edward C.

Conferencia dada en la Sociedad científica alemana de Santiago de Chile sobre los aborígenes de la Tierra del Fuego. (Reference from Dabbene, who adds that it was published in the society's *Anales;* I can not find it in the *Verhandlungen.*)

This lecture was given July 25, 1888, by the Rev. Mr. Aspinall after eighteen months' residence among the Yahgans as successor to the Rev. Thomas Bridges. A summary of the lecture by Dy (q. v.), was published in *Globus*, vol. LV.

Mr. Aspinall also contributed various letters of minor anthropological interest to the *South American missionary magazine* from 1886 on.

[Avebury, Lord] *Sir* **John Lubbock**

Prehistoric times, 7th ed., "thoroughly revised," New York-London, 1913.

Contains descriptions of the Fuegians, pp. 531-537, 242-243, and notes passim. Based on the older sources, as Hawkesworth, Callander's tr. of de Brosses, Byron's Loss of *Wager*, Fitz-Roy, *a*, Darwin, *a*, Weddell, *Voice of Pity*. The Fuegian sections seem to have passed unscathed through the "thorough revision."

Bahnson, Kristian

Etnografien fremstillet i dens hovedtraek, 2 vols., Kjöbenhavn, 1900.

Contains (I, 539-548) a rather lengthy account of the Fuegians; 2 photographs of Fuegian types; 2 woodcuts, illustrating material culture.

Ball, John

Notes of a naturalist in South America, London, 1887.

Dr. Ball states (p. 242) that he saw no Fuegians at all on his trip. His book contains only a paragraph on the natives (pp. 260-261). He was told (p. 261) by Dr. Fenton, an old resident of Punta Arenas, that it seems a well attested fact that the Canoe Indians when in danger from a rough sea throw an infant overboard. This statement, however, needs confirmation (cf. Subject Bibliography, p. 153).

Bancarel, Fr.

Collection abrégée des voyages anciens et modernes autour du monde. 12 vols., Paris, 1808–9.

Contains abstracts of the following voyages: Drake's (World encompassed), Cavendish's (from Pretty), van Noort's, van Speilbergen's, L'Hermite's, Clipperton's, vol. II; Wallis', vol. IV. The Fuegian anthropological data are given verbatim in the following voyages: Byron's, vol. VI; Bougainville's, vol. VII; Cook's first, vol. VIII; Cook's second, vol. IX.

Banks, Joseph

Journal of the Right Honourable Sir Joseph Banks during Captain Cook's first voyage in H. M. S. *Endeavor* in 1768–71, ed. by Sir Joseph D. Hooker, London, 1896. Cf. Hawkesworth.

Contains (pp. 49-50, 55-56, 58-61) the best description that has come down to us of the Onas, very probably Mánekenkn, met by Capt. Cook's first expedition in Jan., 1769, at Good Success Bay. On p. 60 two words *hallécá*, "beads," and *ooudá*, "water." The latter seems to be Mánekenkn rather than Shílk'nam.

Barclay, William S.

(*a*) The land of Magellanes, with some account of the Ona and other Indians. (In *Geogr. jour.*, London, Jan., 1904, XXIII, no. 1, pp. 62–79.)

Contains a quite long and detailed account of nearly all phases of Ona culture (pp. 68–79), together with a few brief notes on the Yahgans and Alacaluf (pp. 63–66).

(*b*) Life in Tierra del Fuego. (In *Nineteenth century and after*, London, Jan.–June, 1904, LV, 97–106.)

Covers nearly the same ground as the preceding article but somewhat less fully.

(*c*) At the world's end, being an account of the now almost extinct Canoe-dwellers and other tribes of Tierra del Fuego. (In Supplement to *Illustrated London news*, Jan. 30, 1904, CXXIV, pp. i–iv.)

Covers the same ground as the preceding articles, lacking, however, some details; contains an Ona legend and a few notes on the Yahgans, not found in (*a*) and (*b*); also several excellent photographs and sketches.

The foregoing articles are important contributions to our knowledge of the Onas. They are based on somewhat limited personal observation during a visit to eastern Fuegia from Jan. 25 to the end of Feb., 1902, but chiefly (according to Dr. Dabbene, *a*, p. 78, who traveled with Mr. Barclay) on information furnished by Mr. Lucas Bridges (q. v.).

Bargas, Ignacio. 1779–80

See Francisco Menendez.

Barmon, de

Esquisse d'un voyage au détroit de Magellan. (In *Soc. impér. acad. de Cherbourg*, séance 4 juil., 1862.) (Reference from Anrique, p. 393.)

Barros Arana, Diego

(*a*) Los Fueguinos. (In *La Lectura*, Santiago de Chile, 1884, I, 3–5.) (Reference from Porter, p. 409.)

(*b*) Historia jeneral de Chile, 16 vols., Santiago, 1884–1902.

Contains (I, 39–48) an account of the Fuegian aborigines based on written sources and dealing almost exclusively with the Yahgans and Alacaluf. The description of the other Chilean aborigines (I, 49–114) gives passim some notes on Chonoan culture.

Bartels, Max

See Ploss, *b*.

Bastian, Philipp Wilhelm Adolf

Die Culturländer des alten America, 3 vols., Berlin, 1878–1889.

The account in vol. I (pp. 17–18) of the Onas seemingly is based not on personal observation by Prof. Bastian, but on information given him by colonists who came aboard the vessel at Punta Arenas. The data on Fuegian religion (p. 18) have to be used with caution. The author passed through the Strait in 1875.

Beauchesne-Gouin. 1699

See Marcel, *a*, *c*, de Villefort.

Beauregard, Ollivier

Sur les tribus qui habitent la Terre de Feu. (In *Bull. Soc. d'anthr. de Paris*, 1882, 3d ser. v, 672–674.)

An unimportant quotation from an article by Capt. Bove in *La Nación*, of Buenos Aires, Sept. 22, 1882. Very brief data on the Yahgans, Alacaluf, and Onas.

Beauvoir, José María

(*a*) Pequeño diccionario del idioma fueguino-ona con su correspondiente castellano, Buenos Aires (1901).

Contains 1,876 common Ona words, 76 sentences and phrases, and a few additional words, 132 proper names, and the Lord's Prayer in Ona. The vocabulary is preceded by a few remarks on Ona religion and mythology (p. 6) and by a comparative Yahgan-Alacaluf-Ona vocabulary of 41 words (pp. 7–8). Inserts after pp. 4 and 36 give accounts of the groups of natives exhibited at Paris in 1889 and at Genoa in 1892. In the comparative vocabulary the Yahgan and most of the Alacaluf words seem to have been taken from Hyades, *q*, and Fitz-Roy, *b*, the remaining Alacalufan words presumably from the Dawson Island natives. Father Beauvoir's earlier Ona dictionary has been superseded by his later one, described below.

(*b*) Los Shelknam: Indígenas de la Tierra del Fuego, Buenos Aires, 1915.

The most important published work on the Ona language. The most valuable parts of the book are the extensive vocabulary of more than 4,000 words (Ona-Spanish, pp. 19–76; Spanish-Ona, pp. 109–161) and the large collection of 1,400 Ona sentences with their Spanish translation (pp. 79–104). In addition the following linguistic material is given: Ona pronunciation and accent (pp. 1–4); a few notes on Ona grammar (pp. 4–9 and passim in "frasario," pp. 79–104); the Lord's Prayer and Angelical Salutation in Ona (p. 77); more than 400 Ona proper names and the meaning of 85 proper names (pp. 163–170); an extensive list of Ona local names (pp. 220–225); 211 Haus words (pp. 171–173); an Ona-Tehuelche comparative vocabulary of 110 words (pp. 179–181); Ona-Tehuelche numerals and cardinal points (pp. 195–196); an extensive list of about 1,000 Tehuelche words, and 45 phrases and sentences (pp. 183–193, 197–198); a comparative Ona-Yahgan-Alacaluf vocabulary of 103 words (pp. 15–17).

The Haus or Mánekenkn vocabulary, to judge by Mr. Lucas Bridges' list, would seem to be pure or nearly pure Shelknam. See comment under Cojazzi. The Yahgan and Alacaluf words in the comparative vocabulary on pp. 15–17 are apparently taken from Hyades, *q*.

Father Beauvoir also gives a brief summary of Ona culture (pp. 201–212, 217–220). Many photographs illustrating environment, physical type, and culture.

Father Beauvoir began his studies among the Onas in 1892, and as a missionary among them from 1893 until recently had ample opportunity to gather much information regarding their language. He had as principal interpreters two Onas, José Luis Miguel Kalapacte, who spoke Spanish well, and José Tomás Ven Paschol. With the former he was intimately and daily associated for fourteen years. Father Beauvoir also acknowledges his indebtedness to his confrères of the Salesian missions, particularly to Father Juan Zenone, who has been with the mission Onas, especially the children, since 1894, and who has a fair speaking knowledge of the language. What Father Beauvoir wrote of the Pequeño diccionario would no doubt apply to his larger work as well: "Estas palabras por haberlas oído muchas veces en sus conversaciones familiares, y entendido bien por habermelas hecho explicar por Indios que allegados á nosotros, comprendían suficientemente nuestro idioma, hasta lo hablaban y escribían, tengo una seguridad moral de que los vocablos contenidos en este Diccionario tienen realmente el significado que se les da en la lengua Castellana" (*a*, p. 3).

Beazley, Charles Raymond, *ed.*

(*a*) Voyages and travels, 2 vols., Westminster, 1903.

Contains (I, 281–291) Pretty's account of the voyage of Cavendish in 1587.

(*b*) Voyages of the Elizabethan seamen, Oxford, 1907.

Contains Drake's Famous voyage.

Becerra, W.

En la Tierra del Fuego: Esploración al país de los Onas: La bahía Inútil. (In *Revista de marina*, Valparaíso, 1898, xxv, 1706–1724, 1728 ff.)

The first section contains nothing of value to the anthropologist; but the second, to which I had not access, gives an account of the natives and "un estenso vocabulario" (Anrique, p. 449).

Benignus, Siegfried

In Chile, Patagonien und auf Feuerland, Berlin, 1912.

Contains a fairly good account (pp. 229–236) of Ona culture, and a shorter one (pp. 236–244) of Yahgan and Alacalufan. Five Yahgan words on p. 243, from Capt. Bove's vocabulary. The author seemingly had not much personal contact with the Fuegian natives. Nine photographs, chiefly of Ona types.

Beranger, Cárlos de

Relacion jeográfica de la provincia de Chiloé, San Cárlos, 1773. Ed. with introd. and notes by Nicholas Anrique R., Santiago de Chile, 1893.

Contains (pp. 13–14, 16) interesting notes on the territory and culture of the Chonos, with further data from the early sources added by the editor. Beranger had not visited the Chonos in their native islands, but as governor of Chiloé had some knowledge of them.

Bermondy, Théoph.

Les Patagons, les Fuegans et les Araucans. (In *Arch. Soc. américaine de France*, Paris, 1875, n. s. I, 355–366.)

Contains a fair description of the Fuegians based on the then extant sources, and an unimportant discussion of the interrelations of the tribes of extreme southern South America.

Betagh, William

A voyage round the world: Being an account of a remarkable enterprise, begun in the year 1719, chiefly to cruise on the Spaniards in the great South Ocean, London, 1728; abstr. in Henry, vol. II; in Kerr, vol. X; in Bancarel, vol. II.

Contains (pp. 79-81, 85) brief though sympathetic accounts, quoted verbatim from the journal of Capt. Clipperton's chief mate, George Taylor, of the natives, probably Alacaluf, met casually in June-July, 1719, at points in the Strait between Elizabeth Island and Cape Quod. Betagh was captain of marines on Clipperton's vessel, the *Success*.

Bischoff, Theodor von

(*a*) Die Feuerländer in Europa, Bonn, 1882.

Bischoff, Theodor von—Continued

This small brochure contains unimportant notes on the mentality, morality, and religion of the Alacaluf, based on observation of the Hagenbeck group exhibited in Europe. Stature measurements on p. 3.

(*b*) Bemerkung über die Geschlechtsverhältnisse der Feuerländer. (In *Sitzungsber. d. Math.-phys. Classe d. kgl. bayer. Akad. d. Wissensch.*, München, 1882, XII, 243–246.).

A study of Alacalufan sexual anatomy and physiology, based on observation of the same group.

(*c*) Weitere Bemerkungen über die Feuerländer. (Ibid., pp. 356–368.)

Anatomical data obtained from the postmortem examination of the sexual and some other organs of two women of the same group; also (p. 368) stature measurements and brain weight of same two women and of one man. 1 plate. Cf. Seitz, *a* and *b*.

Bizemont, H. de

Moeurs et coutumes des habitants de la Terre de Feu. (In *Exploration*, Paris, 1883, vol. XV.) (Reference from Dabbene.)

Böhr

Besuch von Feuerländern am bord S. M. S. Hansa. (In *Verh. Berlin. Ges. f. Anthr. u. s. w.*, 1881, pp. [30]–31.)

A short description of some Alacaluf met in their canoe on July 29, 1879, about 30 miles west of Cape Froward. Dr. Böhr, a naval surgeon, measured the heads (breadth, length, circumference) of three and the stature of four of the Alacaluf men who came aboard.

Bollettino salesiano. Periodico della Pia unione dei cooperatori di Dom Bosco. Published monthly, Turin, Italy, 1877–, and printed in 8 languages.

The official organ of the Salesian fathers, an increasingly important source of first-hand information on the Onas and Alacaluf; comparatively little about the Yahgans. The Salesians have been established in Alacalufan territory since 1889 and in Onan since 1892. With the exception of the Bridges and Lawrence brothers, few if any white men have had better opportunities for studying the Onas and Alacaluf at first hand. Frequent contributions of anthropological value have been published in the *Bollettino* since 1887 by Mgr. Fagnano, Fathers Beauvoir, Borgatello, Rossi, Renzi, Zenone, and others. Most of the recent numbers contain photographs. Dr. Cojazzi (q. v.) has gleaned all the above scattered anthropological material and published it in his recent valuable work.

Bollinger

Ueber die Feuerländer. (In *Corresp.-Blatt Deutsch. Ges. f. Anthr. u. s. w.*, München, Apr. 1884, xv, 25–27.)

A résumé of Dr. Seitz's article in Virchow's *Archiv*, vol. XCI.

Borgatello, Maggiorino

Vocabulario comparativo Alacaluf, Ona, Tehuelce. MS.

An extensive and important vocabulary, the Alacaluf section of which is published in Dr. Cojazzi's work (pp. 125–140). (Cf. also ibid., pp. 16–17.) Father Borgatello has spent many years among the eastern Fuegians. Dr. Cojazzi writes me under date of March 25, 1915, as follows: "Father Borgatello gathered the Alacaluf vocabulary by questioning patiently the children and adults of the mission of S. Raffaele on Dawson Island, where there were numerous Alacaluf. . . . He does not speak their language fluently, but knows it fairly well, as does also a lay brother named Juan Xikora. The latter can speak Alacaluf, although with a little difficulty." Dr. Cojazzi adds that the natives speak Spanish, and that Brother Xikora assisted Father Borgatello in gathering the vocabulary. The list given in Dr. Cojazzi's book is the most extensive of the Alacaluf tongue thus far published; it comprises 455 words and 137 sentences, phrases, and pronouns.

Bossi, Bartolomé

(*a*) Viaje descriptivo de Montevideo a Valparaiso, Santiago de Chile, 1874, 54 pp. (Reference from Anrique, pp. 576–577.)

(*b*) El vapor Charrúa en el Pacífico y regiones magallánicas, Buenos Aires, 1880, 74 pp. (Reference from Anrique, p. 577.)

(*c*) Esploración de la Tierra del Fuego con el vapor oriental Charrúa, Montevideo, 1882, 59 pp. (Reference from *Pet. Mitt.*, 1882, XXVIII, 393.)

The brochure mentioned in *Boll. Soc. geogr. ital.*, 1883, p. 941, is seemingly an Italian translation of the preceding.

The last work, chiefly of hydrographical and geological interest, is an account of a two months' trip in Mar.–Apr., 1882 (*Pet. Mitt.*, loc. cit.). Capt. Bossi's contributions to Fuegian anthropology are not, it seems, important.

Bougainville, Louis Antoine de

Voyage autour du monde, par la frégate du roi la Boudeuse, et la flûte l'Étoile; en 1766, 1767, 1768 & 1769, 2d enlarged ed., 2 vols., Paris, 1772; Montémont, vol. IV; Bancarel, vol. VII; Prévost, vol. XX; Engl. tr. by J. R. Forster, London, 1772; Dutch tr., Dordrecht, 1772 (Tiele, *b*, p. 45, no. 177); abstr., Henry, vol. IV; description of Pecherais in Hatin.

Contains (I, 289–303) the well-known account of the Pecherais (Alacaluf) met at Port Gallant in 1768. The description of the native medicine-man and his methods on pp. 297–302 is especially valuable. A few unimportant notes passim, I, 78–80, 276.

Bourne, Benjamin Franklin

The captive in Patagonia; or Life among the giants, Boston, 1853; London, 1853.

Unimportant for Fuegian anthropology. Contains nothing except (pp. 204–205 of Boston ed.) a mere mention of some Canoe Indians seen at a distance, and (p. 148 of Boston ed.; p. 107 of London ed.) a statement that the author was told by a person met at the Chilean penal settlement that the Fuegians used poisoned arrows. This error has recently been revived by Mr. H. Hesketh Prichard (q. v.).

Bove, Giacomo

(*a*) Viaggio alla Patagonia ed alla Terra del Fuoco. (In *Nuova antologia di scienze, lettere ed arti*, Roma, 15 dic., 1882, LXVI, 2d ser. XXXVI, 733–801.)

(*b*) La spedizione antartica. (In *Boll. Soc. geogr. ital.*, Roma, 1883, XX, 2d ser. VIII, 5–60, 96–113, and especially 132–147; Engl. tr. in *S. Amer. miss. mag.*, London, 1883–84.)

(*c*) Expedicion austral argentina: Informes preliminares presentados á S. S. E. E. los ministros del Interior y de Guerra y Marina de la República Argentina, Buenos Aires, 1883.

(*d*) Patagonia, Terra del Fuoco, Mari Australi, Genova, 1883, 150 pp. (Reference from *Arch. per l'antrop. e l'etnol.*, Firenze, 1882, XII, 287–299, which reprints in full the somatological and cultural sections.)

The four preceding papers contain a very important contribution to our knowledge of Yahgan culture and give a few good notes passim on Alacalufan and Onan culture. The cultural sections in *a*, *b*, and *d* are identical word for word; that in *c* is slightly abbreviated and summarized. Stature measurements of 33 Yahgans are given in *b* (p. 144), in *c* (p. 166), and in *d*, *Arch.* reprint (p. 289). A vocabulary of 171 words in Yahgan is given in *b* (pp. 145–147), and the same vocabulary, with 16 additional words, in *c* (pp. 161–165). Ethnological map in *b*, *c*, and probably in *d*.

Bove, Giacomo—Continued

(*e*) Giacomo Bove über die Feuerländer. (In *Globus*, Braunschweig, Jan.–June, 1883, XLIII, 156–159.)

A summary of the Fuegian cultural data gathered from Capt. Bove's publications. The stature measurements and vocabulary are omitted.

(*f*) Viaggio alla Terra del Fuoco, Roma, 1884, 102 pp. (Reference from Anrique, p. 418.)

See also Cora, Keane, *a*, and von Feilitzen, articles from Capt. Bove's publications.

Capt. Bove's studies are among our most important sources for Yahgan culture and to a lesser extent for Yahgan linguistics and somatology. His observations were confined almost exclusively to the Yahgans during the two months he spent in eastern Fuegia from May 1 to the end of June, 1882. During this time he had almost continuous contact with the Yahgans, but very slight acquaintance with the Ona and Alacaluf. He was an exact and careful observer. Although not previously familiar with the Yahgan language, he had the advantage of native interpreters and the still greater advantage of drawing on the intimate knowledge of the elder Bridges and the other missionaries of Ushuaia, to whom, as he states, he was indebted for a "great part" of his material, both cultural and linguistic.

Capt. Bove made a second visit to Fuegia in Feb.–Apr., 1884, but the papers listed above, with the exception perhaps of *f*, are based on studies made during the first trip. The human skulls and skeletons brought back by Capt. Bove were carefully studied by Drs. Mantegazza and Regalia and by Prof. Sergi; the artifacts by Drs. Colini and Lovisato (qq. v.). It may be added that Capt. Bove's vocabulary was apparently intended as a corrective of Admiral Fitz-Roy's Tekeenica list, as the former gives equivalents only of English words found in the latter.

Brassey, Annie Allnutt

Around the world in the yacht 'Sunbeam,' New York, 1879, 1880; published in Boston, 1892, under title "A voyage in the 'Sunbeam' "; Fr. tr. (according to Dabbene), Tours, 1885.

Contains a few unimportant notes (pp. 119–129 passim, 137–138, of 1879 ed.) by a good observer, of three women (Alacaluf?) seen at Punta Arenas and of Alacaluf met in canoes in English Reach and near Eden Harbor in 1876.

The Voyages and Travels of Lord Brassey from 1862 to 1894, 2 vols., London–New York, 1895, contains only one sentence about the same English Reach group.

Bridges, Despard

See Bridges, Thomas, *t*.

Bridges, Lucas

(*a*) Vocabulario y frases de la lengua de los Onas. MS. 32 pp. (Reference from Mitre, I, 164.)

The most important as well as the most extensive or next most extensive Ona (Shilk'nam) dictionary extant. It contains, according to the Rev. Thomas Bridges' letter to General Mitre, "algunos miles" words; it is in the Museo Mitre, Buenos Aires.

(*b*) Vocabulario Ona (Mánekenkn). MS. (Reference from Lehmann-Nitsche, *d*, p. 241.)

This important vocabulary is our chief source for the language of the nearly extinct Onas of the extreme southeastern peninsula of Tierra del Fuego Island. 97 words from the manuscript in the possession of Dr. Samuel A. Lafone Quevedo have been published by Dr. Lehmann-Nitsche, *d*, pp. 242–276 passim.

Mr. Lucas Bridges, a son of the Rev. Thomas Bridges, was born in Tierra del Fuego, and with his brother William has spent his whole life in intimate and friendly familiarity with the Onas and to a lesser extent with the Yahgans. He speaks the Ona (Shilk'nam) tongue fluently, and according to Dr. Lehmann-Nitsche (*d*, p. 233, note 1) also some Yahgan. He is a blood member of the Shilk'nam tribe and has the privilege of sitting in the council house (Furlong, *k*).

The Bridges brothers are the best living first-hand authorities on Ona culture. They have, so far as I can discover, published no comprehensive detailed accounts of Ona culture, but their intimate knowledge has been drawn upon extensively by Barclay, Cojazzi, Fr. Cook, Furlong, Gallardo, Holmberg, O. Nordenskjöld, Tonelli. With the exception of the Salesians, they are almost our sole original living sources for the study of Ona social, moral, and religious culture. Cf. also letter by Mr. Lucas Bridges quoted by Mr. Young.

Bridges, Thomas

(*a*) Manners and customs of the Firelanders. (In *A voice for South America*, London, 1866, XIII, 181ff; Fr. tr. by Hyades in *Bull. Soc. d'anthr. de Paris*, 1884, 3d ser. VII, 169–183.)

An important account of Yahgan social, moral, and religious culture. Some Yahgan words passim. This article was written before Mr. Bridges took up his residence at Ushuaia. It is based on data gathered from the Yahgans who had been living at Keppel Island Mission in the Falklands. In 1866 Mr. Bridges had had eight years of contact with mission Yahgans in addition to at least one short visit to Fuegia and had been assiduously studying their language for at least four years.

Bridges, Thomas—Continued

(*b*) Extracts from Journal, and Letters. (In *The voice of pity for South America* [continued as *A voice for South America* and *The South American missionary magazine*] intermittently from about 1862 to 1898, almost monthly from at least 1871 to 1886.)

These extracts and letters are largely professional missionary reports, but many contain important data on Yahgan material culture, and are invaluable for the study of Yahgan mentality, character, and morality. Nearly all the anthropological material contained in them is more easily accessible in the author's other papers. Some Yahgan words passim.

(*c*) The natives of Tierra del Fuego. (In *Mission life*, London, 1877, n. s. VIII, pt. 1, 109–115; published originally in *S. Amer. miss. mag.*, Dec. 1, 1875, pp. 214–221.)

Chiefly of value for the study of Yahgan character and morality.

(*d*) The Yahgans of Tierra del Fuego. (In *Jour. Anthr. inst.*, London, 1885, XIV, 288–289.)

An extract from a letter to Prof. Flower dated Ooshooia Aug. 24, 1884, giving descriptive somatological notes on the Yahgans and the results of a very careful census of the Yahgans made by Mr. Bridges in June, 1884.

(*e*) Das Feuerland und seine Bewohner. (In *Globus*, Braunschweig, 1885, XLVII, no. 21, 331–333.)

Chiefly on Yahgan social, moral, and religious culture, with very brief notes on the general culture and language of all three Fuegian tribes.

(*f*) La Tierra del Fuego i sus habitantes. (In *El Ferrocaril*, Santiago de Chile, 1886.) (Reference from Anrique, p. 420.)

Includes, according to Drs. Anrique (p. 420) and Porter (p. 412), copious data on the life and customs of the natives, together with vocabularies.

(*g*) Account of the Fuegians and their country. (In *Flores parish magazine*, Buenos Aires, Sept., 1886, pp. 183–185.) (Reference from Hyades.)

(*h*) El confin sur de la República: La Tierra del Fuego y sus habitantes. (In *Bol. Inst. geogr. argent.*, Buenos Aires, 1886, VII, cuad. 9, pp. 200–212.)

A succinct and excellent account of Yahgan culture in nearly all its phases, together with some notes on Yahgan grammar. Some Yahgan words passim. The article also contains a few remarks on the Onas and an account of Fuegian flora, fauna, etc.

(*i*) Mémoire inédit, 1886. MS.

Apparently Mr. Bridges' most comprehensive paper on the culture of the Yahgans, Alacaluf, and Onas. It is used and quoted extensively by Dr. Hyades, *q*.

(*j*) Datos sobre Tierra del Fuego. (In *Rev. Museo de La Plata*, La Plata, 1892, III, 19–32, 313–320.)

These letters from Mr. Bridges, published in English, contain some important data bearing on the material culture of the Yahgans and Alacaluf.

(*k*) La Tierra del Fuego y sus habitantes. (In *Bol. Inst. geogr. argent.*, 1893, XIV, cuad. 5–8, pp. 221–241.)

A condensed, comprehensive account of many phases of Yahgan psychical culture—one of the author's most important papers. It includes some very short notes on Yahgan grammar and passim many Yahgan words. On pp. 221–232 is a description of Fuegian flora, fauna, climate, etc.

(*l*) Dictionary of the Yahgan language, 2 vols., completed July 5, 1879. MSS.

By far the most important extant Yahgan vocabulary, containing, according to a letter from the compiler quoted in the *S. Amer. miss. mag.*, 1912, XLVI, 77, 1,081 pages and about 32,430 words. The MSS., brought back by the *Belgica* expedition, are now being prepared for publication by Father Hestermann, S. V. D. For details, see Denucé, Hestermann, *a*, and Furlong, *p*. "I was informed," Prof. Furlong says (*k*), "by Mr. William Bridges, a rancher of Tierra-del-Fuégo, that his father, the Rev. Thomas Bridges, incorporated between 500 and 600 words of Haush in his 'Anglo-Yahgan Dictionary and Grammar' under the heading of 'Eastern Ona.'"

(*m*) Gospl Looc Ecamanwaci: The gospel of St. Luke translated into the Yahgan language, London, 1881.

This is the first text of any length ever published in the Yahgan tongue.

(*n*) Aposl'ndian Wushtwagu: The Acts of the Apostles translated into the Yahgan language, London, 1883.

(*o*) Gospel Jon Ecamanwaci: The gospel of St. John translated into the Yahgan language, London, 1886.

All three of the foregoing publications were published anonymously. They were printed for the British and Foreign Bible Society. Strangely enough, the last two translations have been entirely overlooked by almost all students of Fuegian linguistics. The Bureau of American Ethnology library at Washington possesses copies of all three texts.

Bridges, Thomas—Continued

(*p*) A few notes on the structure of Yahgan. (In *Jour. Anthr. inst.*, London, Aug., 1893, XXIII, 53–80.)

Under this modest title the Rev. Mr. Bridges gives a comprehensive outline of Yahgan grammar, probably the most important extant treatise on the subject. The paper includes passim a great number of Yahgan words.

(*q*) [Ten letters giving a short account of Yahgan grammar.] MSS.

These letters were utilized by Dr. Garbe and are perhaps the manuscript notes of which Dr. Ellis speaks and which he used.

(*r*) Letter to Gen. Mitre, dated April 28, 1898. (Quoted in extenso in Mitre, vol. I, pp. 161–162.)

Contains Mr. Bridges' last written remarks on the Fuegian languages in general and on Yahgan grammar in particular.

(*s*) Vocabulary of the Ona language. MS. (Reference from *S. Amer. miss. mag.*, Oct. 1, 1884, p. 223; cf. also Hyades, *l* p. 717; Th. Bridges, *j*, p. 316.)

At that time it contained about 1,200 words. It has been superseded by and perhaps incorporated in Mr. Lucas Bridges' vocabularies (q. v.).

(*t*) Vocabulary of the Alaculoof language. MS. (Reference from *S. Amer. miss. mag.*, Oct. 1, 1884, p. 223; cf. also Th. Bridges, *e*, p. 331.)

A vocabulary of about the same length as the preceding. It was compiled in collaboration with Mr. Bridges' son Despard. The Rev. Mr. Bridges had begun researches in Alacalufan as early as 1874 (*b*, Feb. 2, 1874, p. 27), but nine years later had not progressed far (Hyades, *q*, p. 13). I can find no further trace of this very important manuscript.

The Rev. Thomas Bridges was easily the most important first-hand authority on the Yahgans' language and culture, especially their social, moral, and religious culture. His contributions to our knowledge of the Alacaluf and Onas are of considerably less importance. He was, however, the first to make clear the tribal relationships in the Fuegian archipelago.

Mr. Bridges first came into contact with the Yahgans in 1858 at the Keppel Island Mission in the Falkland Islands, whither he had come in 1856 as the adopted son of the Rev. Mr. Despard. On the latter's departure for England in 1862, Mr. Bridges was left in charge of the mission Yahgans, of whose language he then began, or perhaps had already begun, a thorough study. After occasional visits to Fuegia from 1863 on, he took up permanent residence at Ushuaia in the heart of the Yahgan territory and at a time when the natives were comparatively untouched by the white man's culture. He remained continuously at Ushuaia from the time of his arrival there late in 1869 or early in 1870 until 1886, when he resigned from the South American Missionary Society and removed to Harberton [Downeast] about 30–35 miles east of Ushuaia on Beagle Channel. He lived here until his death in 1898. During these forty years he was in almost daily contact with the Yahgans, whose friendship, respect, and confidence he retained throughout and over whom he exercised a considerable authority.

He had very much less contact with the Onas, and still less with the Alacaluf. Some few of the latter were usually to be found living among the Yahgans, and from time to time some of them visited Ushuaia. He also made a short trip into their territory in 1886. He met the Onas for the first time in 1875 at Good Success Bay. In the eighties he came into closer touch with them, probably both Shílk'nam and Mánekenkn, especially after his removal to Harberton.

He spoke the Yahgan tongue fluently, but did not acquire a speaking knowledge of either Ona or Alacaluf. He had had professional training neither in philology nor cultural anthropology,—perhaps not a disadvantage under the circumstances, for he approached his subject with an open mind that was at the same time interested, alert, and cautious, as well as keen and exact.

The fund of information stored up by him and by his confrères was largely drawn upon by Bove, Lovisato, Spegazzini, Martial, Hyades, and other later writers on Fuegian anthropology.

Brine, Lindesay

Travels amongst American Indians, their ancient earthworks and temples, London, 1894.

Contains (p. 148) meager notes on some Alacaluf met casually in Jan., 1877, at Churruca Bay in the western Strait. Measurements of men: Stature, average under 5 ft., minimum 4 ft. 9 in., maximum 5 ft. 2 in.; chest, 34 to 35 in.

Brinton, Daniel Garrison

(*a*) Races and peoples, New York, 1890.

Contains an unimportant descriptive paragraph on the Fuegians (p. 271).

(*b*) Essays of an Americanist, Philadelphia, 1890.

Contains (pp. 39–40) a short note from Darwin on physical resemblance of Fuegians to Botocudos, and (p. 338) a refutation of Prof. Max Müller's assertion that the Yahgans' 30,000-word vocabulary betokens a former higher culture.

(*c*) The American race, New York, 1891.

The sections dealing with the Chonos (pp. 325–327), based largely on Del Techo, and with the other Fuegians (pp. 329–332) need considerable revision in the light of more recent studies—

Brinton, Daniel Garrison—Continued

on the following points in particular: Chonoan and other Fuegian tribal names and divisions, classification of Chonos with Araucanians, dates of first mission among Chonos and of removal of Chonos to Chaulañec, remarks about family affection, the bolas and woven baskets that hold water, etc. On p. 364 a comparative vocabulary of 21 words, the Alacalufan section from Fitz-Roy, the Yahgan apparently from Bridges and Fitz-Roy. Dr. Brinton (p. 332) found no verbal resemblance between the Fuegian and Tapuyan languages.

(*d*) Studies in South American native languages. (In *Proc. Amer. philos. soc.*, Philadelphia, 1892, XXX, 45–105; repr., ibid., 1892.)

Reproduces the Alacalufan and Yahgan vocabularies from the preceding work.

(*e*) Further notes on Fuegian languages. (Ibid., pp. 249–254.)

A notice of La Guilbaudiere's vocabulary of which 22 words are given on p. 250, and a comparison of Yahgan words with Dr. Segers' Ona vocabulary, which is given nearly in full on pp. 252–253. Dr. Brinton's conclusion that the Onas are linguistically nearer to the Yahgans than to the Tehuelches is explained by the fact that Dr. Segers' list contains many errors and many Yahgan words (Lehmann-Nitsche, *d*, p. 237).

Brosses, Charles de

Histoire des navigations aux terres australes, 2 vols., Paris, 1756; Engl. tr., by John Callander, 3 vols., Edinburgh, 1766–1768; Germ. tr., by Johann Christoph Adelung, Halle, 1767.

From the anthropologist's standpoint perhaps the most satisfactory extant history of the first two centuries and a quarter of Magellanic exploration. De Brosses paraphrases or quotes verbatim practically all the Fuegian anthropological material found in the original documents to which he had access. In the following summary of contents the pages of the French edition on which references to the Fuegians occur are given.

Vol. I: Magellan, 138; Loaysa, 152; Alcazaba, 164–165; Drake, 186, 188–189; Sarmiento, 200–216 passim; Cavendish, 224, 229, 231, 233; Chidley, 234; Hawkins, 245; de Cordes and de Weert, 278–280, 283–287; van Noort, 296–299, 301; van Speilbergen, 344; the Nodals, 423–424; L'Hermite, 439, 440–446. Vol. II: Narbrough, 30–36, 41; Sharp, 44–45; de Gennes, 107, 109, 111; Beauchesne-Gouin, 115–118, 120; Frezier, 208–209, 211–212; Labarbinais, 220–221; Anson, 284–290; Labbe, 434–435; Nyel, 438–439. For the voyages of Ladrillero, Cortés Hojea, and Sarmiento, de Brosses had not access to the important original documents.

Brouwer, Hendrick

Journael ende historis verhael van de reyse gedaen by oosten de straet le Maire, naer de custen van Chili, onder het beleyt van den Heer Generael Hendrick Brouwer inden jare 1643 voorgevallen, Amsterdam, 1646; Germ. tr. (mentioned in Introd. to Span. tr., l. c. infra, p. 4), 1649; Engl. tr. in Churchill, vol. I; Span. tr., in *An. hidr. mar. Chile*, Santiago, 1892, XVI, 1–88.

Brouwer saw some abandoned huts at Valentine Bay, but no natives. Here and there in his account of the Chilotes are a few cultural data common to the Chonos as well; not important.

Brown, Robert

The races of mankind, 4 vols., London-Paris-New York, 1873–1876.

Contains (I, 310–313) an unimportant but fairly accurate, popular account of the Fuegians, based chiefly on Darwin, *a*, and Fitz-Roy, *a*.

Brownell, Charles de Wolf

The Indian races of North and South America, Cincinnati, 1853.

Contains (pp. 630–636) a good but now out-of-date account of the Fuegian Canoe Indians, based chiefly on Prichard, Fitz-Roy, *a*, and Wilkes.

Bruch, Carlos

See Outes, *d* and *e*.

Bry, Theodor, *and others, ed.*

Collectio peregrinationum in Indiam occidentalem, partes XIII (XIV), Francofurti ad Moenum, 1590–1634.

Contains Latin and German translations of the following voyages: Cavendish's (by Pretty), pt. VIII, 1599; de Weert's and van Noort's, pt. IX, 1601–2; van Speilbergen's, pt. XI, 1620; L'Hermite's, Lat., pt. XIII, 1634, Germ., pt. XIV. 1630.

Bulkeley, John, *and* **Cummins, John**

A voyage to the South-Seas, by His Majesty's ship Wager, publ. anon., London, 1743; with authors' names, ibid., 1743; repr. London-Philadelphia, 1757; Kerr, vol. XVII; abstr. in Prévost, XV, 363–384.

Contains (anon. ed., pp. 17–18, 27–31, 58, 63–64, 97–98, 107; other 1743 ed. and repr. of 1757, pp. 22–24, 36–41, 77–78, 84–85, 130–131, 143–144) numerous data on the natives, very probably Chonos and Alacaluf, encountered in 1741 from Wager Island in the Guaianeco Archipelago to Cape Quod in the Strait. For further comments, see Byron, *a*.

Burney, James

A chronological history of the voyages and discoveries in the South Sea or Pacific Ocean, 5 vols., London, 1803–1817.

Burney omits much of the Fuegian anthropological material, and often leaves it out altogether, but his work is invaluable as a means of general orientation for the study of the Magellanic explorers.

Bynoe, Benjamin

Journal. (Quoted in Fitz-Roy, *a*, pp. 197–199.)

Contains a good description of a group of natives met in the Gulf of Trinidad on the second *Beagle* expedition. Of special interest is the detailed description of the unusually large plank boat they were using. It was nearly 30 feet long and 7 feet wide, with proportionate depth.

Byron, John

(*a*) The narrative of the Honourable John Byron (commodore in a late expedition round the world) containing an account of the great distresses suffered by himself and his companions on the coast of Patagonia, from the year 1740 till their arrival in England, 1746 (Loss of the *Wager* man of war), 2d ed., London, 1768; Dublin, 1822; Kerr, XVII; Sutcliffe; Germ. tr., Nürnberg, 1769 (Sabin, no. 9731); Span. tr., Santiago de Chile, 1901 (Anrique); anthropological data extracted by Fitz-Roy, *b*, pp. 124–134.

One of Anson's fleet, the *Wager*, in command of Capt. Cheap, was wrecked in May, 1741, on the Guaianeco Islands. Some of the crew returned by way of the Strait (see Bulkeley and Cummins, and An affecting narrative); the rest remained on Wager Island until December, when they departed in two boats, one containing Lt. Hamilton, Mr. Alexander Campbell (q. v.) and six men, the other containing Capt. Cheap, Dr. Elliot, Byron, and nine men; but the survivors were obliged to return to Wager Island after two months. Hither a "Chono cacique" came and guided the party up to Chiloé by way of the Isthmus of Ofqui.

The extensive, and in some respects important, cultural data scattered through the narrative (pp. 18, 32–35, 90–92, 103–107, 123–169 passim) are frequently quoted in later works as being certainly and indiscriminately Chonoan. Judging from the circumstances as described and from the data given, it seems probable enough that the natives who visited the shipwrecked crew up to December, 1741, were from the vicinity of the Gulf of Peñas and consequently, as Father García's Diario shows, Chonos. But what the later group were who guided Byron up to Chiloé is more problematical; it looks as if these latter were either Chonos who had settled on southern Chiloé, or were of mixed Chonoan and Chilotan blood, or else were a party of mixed Chonos and Chilotans.

Byron, John—Continued

Byron (p. 103) and Alex. Campbell (p. 60) both call the "cacique" a Chono, but he appears to have been a native of Chiloé (A. Campbell, p. 52) and, besides speaking Spanish, held office under the colonial government (Byron, pp. 103–104; A. Campbell, p. 52); Byron, moreover, says that the "Chonos" live "in the neighborhood of Chiloé" (p. 103). This "cacique" had no authority over some at least of natives frequenting Wager Island district (Byron, pp. 106–107) but had authority among some of the village Indians in the southern part of Chiloé (Byron, pp. 171–172). He moreover "seemed to understand but little" of the language of some Indians met in canoe, probably near Aisen Inlet; "their language" . . . Byron adds, "sounded to us very different from what we had heard before" (pp. 166–167). On the other hand, most of the cultural data derived from observation of this group seem to be Chonoan, and Alex. Campbell makes the rather significant remark that the guttural language spoken by the Chono cacique and "Coucou" Indians who guided the shipwrecked party contrasted noticeably with the euphonic Chilotan tongue (pp. 62, 74).

Taking into account the foregoing points, there seems to be sufficient ground for quoting the anthropological data in Byron's and Alex. Campbell's narratives, even the data based on the cacique's group of natives, as Chonoan—this the present writer has done in the Introduction and Subject Bibliography—but with some reserve and caution against possible Chilotan influence. As for the anthropological material given by Bulkeley and Cummins and the author of the Affecting narrative, some, based on observation of the natives met near the western end of the Strait of Magellan and near Cape Quod, is pretty surely Alacalufan; the rest is very probably Chonoan.

(*b*) An account of a voyage round the world in the years MDCCLXIV, MDCCLXV, and MDCCLXVI by the Honourable Commodore Byron in His Majesty's ship the *Dolphin*. (In Hawkesworth, I, q. v.)

Contains (I, pp. 66–67, 72, 79–81) a few descriptive notes on Alacaluf met casually in Mar.–Apr., 1765, in the western part of the Strait between Jerome Channel and Cape Upright. Byron was the first explorer to report the plank boat within the Strait proper (pp. 79–81). Cf. also Voyage round the world . . . by an officer . . ., London, 1767.

Campbell, Alexander

The sequel to Bulkeley and Cummins's voyage to the South-Seas: or, the Adventures of Capt. Cheap, the Hon. Mr. Byron, Lieut. Hamilton, Alexander Campbell, and others, late of H. M. S. the *Wager*, which was wreck'd on a desolate island in Lat. 47. S. Long. 81. 40. W. in the South-Seas, anno 1741, London, 1747; abstr. in Prévost, xv, 384–394.

There are few copies extant, the work having been suppressed soon after publication; Sabin, no. 10205, gives a slightly different title.

Campbell's account of the natives encountered between the Guaianecos Islands and Chiloé contains practically the same data as that of Byron (*a*), whose fortunes and misfortunes he shared from the time of the wreck of the *Wager* until their arrival in Chiloé. The chief data of interest to the anthropologist are on pp. 19–20, 31–32, 52–54, 57–65, 74. Cf. discussion under Byron, *a*.

[Campbell, George Douglas], *Duke of Argyll*

Primeval man: An examination of some recent speculations, London, 1869.

On pp. 167–173 the author defends the Fuegians' mental capacity and explains their present low culture as due to degeneration, quoting Darwin, *a*, for his facts.

Cañas Pinochet, Alejandro

La geografía de la Tierra del Fuego y noticias de la antropología y etnografía de sus habitantes. (In *Trabajos del IV° Congreso científico [1° Pan-americano]* 1908–1909, tomo XI, *Ciencias natur., antrop. y etnol.*, I, Santiago de Chile, 1911, pp. 331–404.)

In some respects an important work. The description of Yahgan, Alacalufan, and Onan culture is extensive and good, while that of psychical culture is very sympathetic, in fact almost an apologia. The cultural sections of the paper are based on personal observation, on information derived from white residents in Fuegia, and on written sources. Pages 384–393 treat of languages, the section on Yahgan being based on Adam and Garbe, though some of the words given on p. 387 were collected by the author himself, and the section on Ona being derived from Beauvoir, *a*.

Several long digressions are interpolated and exact references are unfortunately wanting. The copious quotations from Señoret (the *Memoria*?), from Navarro A. (the articles in *El Magallanes*?), and from Beauvoir, *a*, make partly accessible some valuable material otherwise difficult to procure. The paper includes 11 plates, 10 being photos of Fuegian types.

Carbajal, Lino Delvalle

La Patagonia, 4 vols., S. Benigno Canavese, Italy, 1899–1900.

Contains on p. 206 of vol. I a paragraph on Fuegian origins.

Carfort, René Charles le Nepvou de

[Four Yahgan melodies.] (In Martial, p. 210, q. v.)

Carpenter, Frank George

South America, social, industrial, and political, Akron, Ohio, 1900.

Contains on pp. 266–270 a description of Alacaluf met casually in Smyth Channel, and on pp. 281–284 a paragraph on the Yahgans from Thomas Bridges and a good longer account of the Onas. Mr. Carpenter's narrative is refreshingly free from the flippant stupidities by which the pages on Fuegian anthropology in so many recent popular and semipopular travel books on South America are marred.

Carruccio, Antonio

See Marchiafava.

Carta sobre la muerte de Valdivia, 1554.

(In Gay, Documentos, I, no. 16, pp. 176–178.)

Contains on p. 177 very summary notes on the Patagonian Channel Indians, apparently those met by the Ulloa expedition in 1553–54.

Cavendish [*or* Candish], Thomas. 1587, 1592.

See Pretty for first voyage, Knivet and Jane for second.

Censo de Chile de 1895. (Reference from Dabbene.)

Contains, according to Dabbene, "algunos datos numéricos y descriptivos de la población indígena de la Tierra del Fuego."

Cevallos, Ciriaco de. (Quoted in Vargas Ponce, *b*.)

Chaigneau, J. Federico

(*a*) *and* **J. M. Simpson.** *See* J. M. Simpson, *a*.

(*b*) *and* **J. M. Simpson.** *See* J. M. Simpson, *b*.

(*c*) Jeografía náutica de la República Arjentina, Santiago de Chile, 1896.

Contains on pp. 12–13 some unimportant brief notes on the three Fuegian tribes, especially the Onas and Alacaluf.

Chamberlain, Alexander Francis

(*a*) The present state of our knowledge concerning the three linguistic stocks of the region of Tierra del Fuego, South America. (In *Amer. anthr.*, 1911, n. s. xiii, 89–98.)

This important paper, largely based on Mitre, contains a critical discussion of most of the sources for the study of the Fuegian languages.

(*b*) On the Puelchean and Tsonekan (Tehuelchean), the Atacameñan (Atacaman), and Chonoan, and the Charruan linguistic stocks of South America. (Ibid., pp. 458–471.)

The section on Chonoan (pp. 467–468), likewise based on Mitre, gives some of the sources for this little known tongue or dialect.

Dr. Lehmann-Nitsche's recent study makes it fairly clear that the two Ona dialects should be classified as Tsonekan. On the evidence at hand the classification of the Chonoan as a distinct linguistic stock is hazardous. It was certainly distinct from the Araucanian, but may have been akin to or identical with the Alacalufan. (Cf. review of evidence in Introduction to present bibliography.)

Chastrey, Henry

L'hygiène et la médecine chez les Fuégiens. (In *Jour. d'hygiène*, Paris, 1899, xxiv, 253–256.)

The most commendable feature of this highly imaginative article is its brevity. Some of the data may have been derived from Byron, *a*, or from Alex. Campbell.

Chidley, John. 1590

See Magoths.

Child, Theodore

The Spanish-American republics, New York, 1891; Fr. tr., Paris, 1891.

Contains (orig. pp. 245–249; Fr. tr., pp. 260–265) a short description of some Alacaluf met casually in Smyth Channel.

Churchill, Awnsham *and* John, *ed.*

A collection of voyages and travels . . . , 2d ed., 6 vols., London, 1732.

Contains translations of Brouwer's narrative (i, 453–471) and of Father Del Techo's history (iv, 636–749).

Cienfuegos, Máximo

A propósito de una comunicación del señor L. Navarro A. sobre los indios fueguinos. (In *Actes Soc. scient. du Chili*, Santiago, 1894, iv, p. xcii.)

A Fuegian man, woman, and child told Dr. Cienfuegos that the Fuegians practiced head deformation. No traces, however, it may be noted, of this custom have been discovered by students of Fuegian anthropology.

Clark, Hyde

The Yahgan Indians of Tierra del Fuego. (In *Rep. Brit. assoc. adv. sci.*, 1883, p. 572; somewhat more detailed in *Jour. Anthr. inst.*, London, 1885, xv, 159–160.)

The author believed he could trace a kinship between the Yahgan and one of the African languages.

Clipperton, John. 1719

See William Betagh.

Cojazzi, Antonio

Gli Indii dell' arcipelago fueghino: Contributi al folk-lore e all' etnografia dovuti alle missioni salesiane, Torino, 1911; Span. tr., lacking Borgatello vocabulary, in *Rev. chilena de hist. y geogr.*, Santiago, 1914, ix, 288–352, x, 5–51.

One of the most important recent contributions to Fuegian anthropology, particularly in the fields of Ona social and religious culture and of Alacaluf and Ona linguistics. Of special interest for Ona culture are the detailed accounts of initiations (pp. 31–38), and of medicine-men, death and burial, and religion (pp. 67–76), and the most extensive published collection of about 18 myths and legends (pp. 76–92). On pp. 100–104 are some valuable notes on the culture of the little known Haush tribe; the Haush vocabulary of 90 words and phrases is, however, judging by Dr. Lehmann-Nitsche's comparative glossary, pure, or almost pure, Shílk'nam, rather than Mánekenkn. The Haush woman from whom the words were gathered by Prof. Tonelli had been living among the Shílk'nam for a long time, so the Rev. Dr. Cojazzi writes me.

Of special value for Fuegian linguistics are: Father Borgatello's (q. v.) extensive Alacaluf vocabulary (pp. 125–140) of 592 words, phrases, and sentences; the important grammatical notes on Ona conjugation (pp. 93–94); Prof. Tonelli's Ona glossary of 39 words, mostly denoting relationship (p. 95); some Yahgan words furnished by the Bridges brothers (pp. 113–114); a comparative Ona, Yahgan, and Alacaluf vocabulary of 40 words, from Beauvoir, *a*, with slight corrections (pp. 16–17); some Ona and Yahgan words passim.

Dr. Cojazzi thoroughly culled and coordinated all the anthropological material on the Fuegians scattered through the Bollettino salesiano. His work is based, in addition, on data furnished by the Salesians, who have been on the ground since 1889 (1886), on personal study of their extensive ethnological collection, including about 1,000 stone artifacts from Fuegia and Patagonia, at Valsalice, Turin, and on manuscript notes of Prof. Tonelli and Dr. Carbajal, Prof. Tonelli's notes being, in turn, based on personal research in Fuegia and on much information given him by Messrs. Lucas and William Bridges and by the missionaries of the Salesian stations.

Many good photographs of Fuegian types and artifacts.

Coleccion de historiadores de Chile y documentos relativos a la historia nacional, Santiago, 1861–1910, vols. I–XXXIX.

The following works in the collection contain material bearing on Fuegian and Chonoan anthropology: Góngora Marmolejo, 1862, vol. II; Olivares, 1874, vol. VII, 1901, vol. XXVI; Molina, *a* and *b*, 1878, vol. XI; Ovalle, 1888, vols. XII–XIII; Pérez García, 1900, XXII–XXIII; Oviedo, 1901, vol. XXVII; Molina, *c*, 1901, vol. XXVI.

Colini, Giuseppe Angelo

Cronaca del museo preistorico-etnografico. (In *Boll. Soc. geogr. ital.*, Roma, 1884, XXI, 2d ser. IX, fasc. 2, pp. 157–162, fasc. 3, pp. 237–240.)

Extensive and valuable comments by a professional ethnologist on the artifacts, the majority Yahgan but many Alacalufan and Onan, brought back by the Bove expedition. Some Yahgan words passim.

Collection of voyages undertaken by the Dutch East-India Company, London, 1703.

A translation from de Renneville of the first four voyages, including de Weert's, in Commelin, 1645, vol. I.

Collignon, René

[Review of Mission du cap Horn, vol. VII.] (In *Anthropologie*, Paris, 1891, II, 702–706.)

An excellent synopsis of the results of Dr. Hyades' somatological researches among the Yahgans.

Colvocoresses, George Musalas

Four years in a government exploring expedition, New York, 1852.

Contains (pp. 34–46, 38–42) good accounts of the Onas and especially of the Yahgans met at Good Success and Orange Bays, respectively, in Jan.-Feb., 1839. Lieut. Colvocoresses was a member of the Wilkes expedition. Cf. Wilkes, Pickering.

Commelin, Izaäk, *ed.*

Begin ende voortgangh van de Vereenighde Nederlantsche geoctroyeerde Oost-Indische compagnie, 2 vols., Amsterdam, 1645; Fr. tr. by de Renneville, 5 vols., ibid., 1702–1706; Engl. tr. (of first four of the voyages, including de Weert's), London, 1703.

Contains the following voyages: de Weert's, van Noort's, vol. I; Speilbergen's, L'Hermite's, vol. II.

Conway, William Martin

Aconcagua and Tierra del Fuego, London, etc., 1902.

Contains (pp. 194–195) meager notes on some Alacaluf met in Magdalen Channel, and on pp. 148–149, 191–193, further unimportant details on Onas and Alacaluf, not based on personal observation.

Cook, Frederick Albert

(*a*) Through the first antarctic night 1898–99: A narrative of the voyage of the *Belgica*, New York, 1900.

Chapter VIII (pp. 98–118) contains a lengthy and excellent account, though popular and somewhat lacking in detail, of the culture of the Onas, with splendid photographs of Ona types.

(*b*) The giant Indians of Tierra del Fuego. (In *Century magazine*, New York, Mar., 1900, LIX, n. s. XXXVII, no. 5, pp. 720–729.)

Covers about the same ground as the preceding.

(*c*) Vers le pôle sud: L'expedition de la *Belgica*, 1897–1899, adaptation française par A. Pfinder. (Reference from Dabbene.)

Whatever may be thought of Dr. Cook's arctic exploits, it must be admitted that his careful and sober account of the culture of the Onas, based on several weeks' personal observation during the *Belgica* expedition and on information given by Mr. Bridges (Lucas?) and probably by the Salesians, is a reliable and valuable contribution to Onan anthropology.

Cook, James

(*a*) Capt. Cook's journal during his first voyage round the world made in H. M. bark *Endeavor*, 1768–1771, a literal transcription of the original MSS., ed. with notes and introduction by Capt. W. J. L. Wharton, London, 1893. (Cf. Hawkesworth.)

Contains (pp. 37–38) a good description of the Onas met at Good Success Bay in Jan., 1769. See also comment under Banks.

Hawkesworth's narrative incorporates many data from the Banks and Solander journals into Capt. Cook's. The many accounts of Capt. Cook's first voyage which appeared prior to 1893–1896 are based on Hawkesworth's compilation. See also Journal of a voyage etc., Dublin, 1772.

(*b*) A voyage towards the south pole and round the world in H. M. S. the *Resolution* and *Adventure* in the years 1772, '3, '4, and '5, including Capt. Furneaux's narrative, 2 vols., London,

Cook, James—Continued

1777; 4th ed., ibid., 1784; Kerr, vols. XIV–XV; Fr. tr. by J. B. A. Suard, 6 vols., Paris, 1778; Montémont, vols. VII–IX; Dutch, tr. by J. D. Pasteur, Leyden, etc., 1797–1809, vols. IV–VII; abstr. in Bancarel, vol. IX.

Contains good but somewhat brief notes on the natives met at Christmas Sound (II, 183–184) and at Good Success Bay (II, 192) in Dec., 1774. The former had angular spear shafts (G. Forster, II, 501), as have the modern Yahgans; they used a characteristic Alacalufan expression, *pechera*, but had probably, like the above Good Success Bay natives who also used it, borrowed it from the Alacaluf.

Cooper, John Montgomery

Fuegian and Chonoan tribal relations. (In *Proc. 19th Internat. congr. of Americanists*, Washington, 1915, pp. 445–453, 1917.)

A general discussion of tribal relations in the Magellanic and Chonoan archipelagos.

Coppinger, Richard William

Cruise of the *Alert*, 1878–1882, London, 1883.

One of our most important sources, chiefly for the culture, but also for the language and somatology, of the Alacaluf of the Patagonian channels and the western Strait. Dr. Coppinger cruised around this territory from January to May, 1879, and later from October, 1879, to April, 1880, during which time he had excellent opportunities for observation. His accounts are full, detailed, and precise. Of special value are the following: Lengthy descriptions of the West Patagonian Channel Alacaluf (pp. 48–56) and of the Tilly Bay Alacaluf (pp. 118–122); stature measurements of 8 men and descriptive somatology (pp. 49–50); Alacaluf vocabulary (see below); discovery of skeletal remains at Rosario Bay (pp. 54, 69–70), of stone axhead in old kitchen-midden (pp. 52–53), and of stone weirs (pp. 125–126) at Swallow Bay; descriptions of plank boat (pp. 43–44) and of spearhead making (pp. 119–121). Other data of less importance (pp. 40–44, 57–59, 63–65, 67, 74, 103, 112–113, 123). Several woodcuts, especially the one opposite p. 34.

The Alacaluf vocabulary (p. 122), containing 50 words and 5 children's names, was taken by signs from an old native at Tilly Bay. Subsequently Dr. Coppinger checked the list by repeating the words and having the native point out the objects. Some of the words were further tested on natives later met at Port Gallant and were found to be correct.

Cora, Guido

La spedizione italo-platense in Patagonia. (In Cora's *Cosmos*, Torino, 1882–83, VII, 181–192, 231–239, 272–277.)

Cora, Guido—Continued

A good synopsis of Capt. Bove's report. Contains the cultural data somewhat abbreviated, the stature measurements, and 167 words from the Yahgan vocabulary. The statement (p. 234) "un uomo ha generalmente quattro mogli" differs slightly from the original "raramente però si vedono uomini con più di quattro mogli" (Bove, *a*, p. 793; *b*, p. 136; *c*, p. 128; *d*, *Arch.*, p. 292), and differs still more from the statements in Bridges, Hyades, and others.

Cordemoy, Camille de

Au Chili, Paris, 1899.

Contains (pp. 6–7) meager, unimportant notes on some Canoe Indians casually met. One Ona photograph.

Cordes, Simon de. 1599–1600

See Jansz Potgieter, Barent.

Córdoba, Antonio de. 1786, 1788–89

See Vargas Ponce.

Coreal, François

Voyages de . . . aux Indes Occidentales, 3 vols., Amsterdam, 1722; 2 vols., Paris, 1722; 2 vols., Bruxelles, 1736.

Contains (Amsterdam ed., III; Paris and Bruxelles ed., II) a French translation of Narbrough's voyage.

Coriat, Isador H.

Psychoneuroses among primitive tribes. (In *Journ. of abnormal psychology*, Boston, Aug.–Sept., 1915, X, no. 3, pp. 201–208.)

An attempt to explain occasional nervous attacks among the Yahgans and Onas, during which they run amuck, on the basis of Dr. Freud's theory of sexual repression. Information regarding these nervous outbreaks (pp. 202–206) as well as some good data on Yahgan and Ona music and medicine (pp. 205–206) and on Yahgan mourning, dreams, taboos, and myths (pp. 205–207) were furnished to Dr. Coriat by Prof. Furlong.

Corra, E.

Les sauvages de la Terre de Feu, leur origine, leurs moeurs et leur acclimatation, Paris, 1881. (Reference from Dabbene.)

Seemingly an unimportant work.

Correa Luna, Carlos

Tierra del Fuego: Expedición Nordenskjöld. (In *Bol. Inst. geogr. argent.*, Buenos Aires, 1897, XVIII, 158–163.)

A summary of Dr. Nordenskjöld's itinerary; not of importance.

Cortés Hojea (*variously spelled* **Ojea, Ogea, Hogea, Ogeda, Ojeda, Oxeda), Francisco de. 1557–58.**

See Goicueta, Miguel de.

Cox, Guillermo Eloi

Viaje en las rejiones septentrionales de la Patagonia 1862–63, Santiago de Chile, 1863.

Contains (p. 165) mention of a people called the Huaicurúes said to live on the north shore of the Strait and to be descended from Tehuelches and Fuegians; their language "se parece algo al de los Tehuelches." On p. 162¾ the author speaks of a young Huaicurú slave whom he saw (cf. Lista, *d* and *e*).

Crawshay, Richard

The birds of Tierra del Fuego, London, 1907.

Contains (pp. xxiii–xxv) a few notes on the material culture of the Onas and a short defence of their character, based partly at least on personal observation; not important.

Crouch, Archer P.

Smyth's Channel and the Magellan Straits. (In *United service magazine*, London, Sept., 1892, CXI, n. s. v, 568–581.)

Contains (p. 569) a few notes on the Fuegians from Darwin, *a*, and (pp. 579–580) a brief description of a canoe load of Alacaluf met casually at Isthmus Bay.

Cummins, John

See Bulkeley.

Cunningham, Robert Oliver

Notes on the natural history of the Strait of Magellan and west coast of Patagonia made during the voyage of H. M. S. *Nassau* in the years 1866, 67, 68, and 69, Edinburgh, 1871.

Dr. Cunningham cruised with Capt. Mayne around Fuegian waters intermittently from 1866 to 1869, during which time he had frequent contact with the Channel and Strait Alacaluf and to a lesser extent with the Onas. His narrative, however, can hardly be called important for the anthropologist, as his descriptions of the natives encountered contain few details of value. See especially the following: On Alacaluf, at Sholl Bay (pp. 312–313, stature measurements of 2 men and 2 women, p. 320), at Eden Harbor (pp. 351–352), and at Fortune Bay (pp. 445–447); on Alacaluf probably in English Reach (pp. 178–179); on Onas (pp. 120–122, 306–307); on the finding of a skull at Philip Bay (pp. 199–200), of a Chono skull and 3 stone axheads in the Guaitecas Islands (p. 335), and of 4 skulls and other bones at Port Melinka in the Guaitecas Islands (p. 436). The Philip Bay skull was described by Prof. Huxley, the 4 Chono skulls by Dr. Flower (qq. v.).

Curtis, William Eleroy

The capitals of Spanish America, New York, 1888.

Contains (pp. 518–528) a popular account of the Fuegians, chiefly Alacaluf, based partly on personal observation and hearsay; to be used with caution.

Dabbene, Roberto

(*a*) Viaje á la Tierra del Fuego y á la isla de los Estados. (In *Bol. Inst. geogr. argent.*, Buenos Aires, XXI, 3–78.)

An important contribution to Fuegian anthropology, especially in the field of Onan culture. After a summary description of the natives in general and of the Alacaluf (pp. 54–56), Dr. Dabbene gives extensive accounts of the Yahgans and Onas (pp. 56–67, 67–78). The Onan section, the most important of the paper, is based on careful personal observation during a visit from Jan. 25 to the end of Feb., 1902, and on data furnished largely through Mr. Barclay (q. v.) by Mr. Lucas Bridges.

(*b*) Los indígenas de la Tierra del Fuego. (Ibid., 1911, XXV, nos. 5–6, pp. 163–226, nos. 7–8, pp. 247–300.)

This very important monograph can be recommended as the best extant introduction to the study of Fuegian anthropology. It is a comprehensive study, detailing at considerable length practically all that is at present known of the culture of the Yahgans, Alacaluf, and Onas, and summarizing their somatology. It is based on his earlier paper and on the best sources. The treatment is thoroughly scientific.

Contents: Environment and division of tribes, pp. 163–168; Yahgans, pp. 168–207; Alacaluf, pp. 207–217; Onas, pp. 217–226, 247–274; measurements by Dr. Hrdlička, of 1 ♂ Yahgan skull and of 1 ♂ and 1 ♀ Ona skulls, with photographs, pp. 283–287; origin of Fuegians, pp. 275–282; extensive bibliography, pp. 288–300. 9 plates and 8 figures in text, in addition to 4 plates mentioned above.

Dally, Eugène

Amérique, (anthropologie). (In *Dict. encycl. des sciences médicales*, Paris, 1869, III, 615–628.)

On pp. 622–623 a short account of Fuegian somatology, based on Bougainville, Fitz-Roy, d'Orbigny, Prichard, de Rochas; not important.

Dampier, William

A collection of voyages, 4 vols., London, 1729; Germ. tr., 4 vols., Franckfurth-Leipzig, 1702–1714; Fr. tr., 5 vols., Rouen, 1723.

Hacke's Collection, containing the voyages of Sharp and Wood, is here published (IV; Germ. tr., IV; Fr. tr., V) at the end of the Dampier voyages.

Darapsky, Luis L.

(*a*) La lengua araucana, Santiago de Chile, 1888. (Reprint from *Revista de artes y letras.*)

Contains (pp. 29-35 passim) a few notes on certain morphological resemblances of the Yahgan to the "Meso-Andine" tongues of South America.

(*b*) Estudios lingüísticos americanos: Fueguinos. (In *Bol. Inst. geogr. argent.*, Buenos Aires, 1889, x, 276–289.)

Dr. Darapsky calls attention to some grammatical resemblances of the Yahgan tongue to the Araucanian, Guarani, Aymara, Quechua, and others. He concludes (p. 287) that the comparison does not justify the supposition of close kinship of the Yahgan with the Araucanian, but does suggest a remote common source for the Yahgan and "Meso-Andine" tongues. His Yahgan data are apparently derived from Bridges, Garbe, and Adam.

Darwin, Charles Robert

(*a*) Journal and remarks 1832–1836, London, 1839. (Vol. III of Narrative of the surveying voyages of H. M. S. *Adventure* and *Beagle;* various later editions; the account of the Fuegians in the Journal of researches, etc., New York, 1871, is rather fuller than in the original edition.)

Contains (pp. 227–244 of orig. ed.; pp. 204–230 of 1871 ed.) an extensive and important description chiefly of culture, the Alacalufan in particular; the Onan and Yahgan are treated much more summarily.

(*b*) The descent of man and selection in relation to sex, 2 vols., London, 1871; many later editions.

Contains many references passim to the Fuegians, chiefly Alacaluf.

(*c*) The expression of the emotions in man and animals, London, 1872.

Contains passim some interesting data on the expression of the emotions among the Fuegians. These data are from Mr. Darwin's own observation and from answers by Mr. Thomas Bridges to a questionnaire.

Mr. Darwin's numerous observations on the Fuegians usually refer to the Alacaluf. He was in Fuegian waters from Dec. 17, 1832, to Jan., 1833, and from the end of May, 1834, to June 10, 1834, on Admiral Fitz-Roy's second expedition. During these two visits he had a fair amount of contact with the natives, and in addition had the advantage of close study of the three Fuegians aboard on the voyage from England to Fuegia. His data on moral and religious culture were derived chiefly from other members of the expedition.

Mr. Darwin's letters to Admiral Sir B. J. Sulivan, commending the work of the English missionaries, were published in the *S. Amer. miss. mag.*, 1882, pp. 138, 260, and 1888, pp. 54–55. They are of interest chiefly from the religious standpoint.

Delorme Salto, Rafael

Los aborígenes de América, Madrid-Habana, 1894.

Contains short accounts of the Fuegians (pp. 151–152) and Chonos (pp. 127–129), and some notes passim (pp. 11–58). Unimportant; the author fails to utilize the Fuegian literature of the last two generations.

Deniker, Joseph

(*a*) *and* **Hyades, P. D. J.**

Mission scientifique du cap Horn, VII. *See* Hyades, *q.*

(*b*) Anthropologie fuégienne. (In *C. R. Congrès internat. des Américanistes*, 8th sess., Paris, 1890, ibid., 1892, pp. 352–356.)

The conclusions of Drs. Hyades and Deniker, as expressed in *Mission sc. du cap Horn*, VII, 166, regarding the probable relationship of the Fuegians (Yahgans and Alacaluf) to other South American aborigines, especially the Lagoa-Santa "race."

(*c*) Les races et les peuples de la terre, Paris, 1900; Engl. tr., London, 1900.

Contains (passim, and pp. 656–658 of orig., pp. 575–576 of tr.) unimportnat brief notes on the Fuegians and Chonos.

Denucé, Jean

Note sur un vocabulaire complet de la langue yahgane. (In *Verh. d. XVI. Intern. Amerikanisten-Kongr.*, Vienna, 1908, ibid., 1910, pp. 651–654.)

An announcement of the proximate publication of the Rev. Thomas Bridges' larger Yahgan dictionary brought back by the *Belgica* expedition in 1899. See also Hestermann. Prof. Franz Boas (ibid., pp. lxviii–lxix) expressed the hope that it would be published as an etymological dictionary.

Despard, George Pakenham

(*a*) Yahgan dictionary. MS. (Reference from Marsh-Stirling, *a*, p. 100.)

According to a letter written by the Rev. Mr. Despard under date of Jan. 23, 1859, he had gotten together nearly 1,000 words in the Yahgan tongue, but no grammar. These had been gathered from natives met in Fuegia, and from the Jemmy Button family who had removed the preceding year to the Keppel Island Mission in the Falklands. I have come across no other mention of this dictionary. As the author continued his linguistic studies under exceptionally favorable conditions for three years after 1859, his dictionary must have grown much beyond

Despard, George Pakenham—Continued

the thousand words it contained at the beginning of that year. Passages in the following article show that the Rev. Mr. Despard made strenuous efforts to master the Yahgan tongue—efforts which met with much success.

(*b*) Fireland: or, Tierra del Fuego. (In *Sunday at home*, London, 1863, x, 676–680, 696–698, 716–718, 731–734, 744–748.)

One of our most important sources for Yahgan culture—see especially pp. 679–680, 696, 698, 716–717. Passim about a score of Yahgan words, and on p. 698 a few good data on Yahgan grammar—the first published data on the subject, as far as I am aware.

The Rev. Mr. Despard first made the acquaintance of the Yahgans in the spring of 1857, and from then until his departure for England in 1862, had excellent opportunities for studying them and their language, both in their native habitat, to which he made several visits, and at the Falkland Mission, whither successive groups of Yahgans were brought for extensive stays. He began the serious study of their language on his first meeting with them at Cinco-Mai Harbor, Navarin Island. His lexical and grammatical researches, built upon and greatly amplified later by the Rev. Thomas Bridges, are of special interest, inasmuch as they are the historical starting point, if we except Admiral Fitz-Roy's inaccurate vocabulary, in the modern study of Yahgan linguistics. His treatment of Yahgan culture gives evidence that he was a keen observer and a cautious and accurate investigator and chronicler.

Diaz, Julino V.

Tierra del Fuego. (In *Revista Soc. geogr. argent.*, VII, 268–292.) (Reference from Phillips, p. 67.)

Dieck, Alfred

Die Waffen der Naturvölker Süd-Amerikas, Stallupönen, 1912.

Contains references passim to Fuegian weapons, based on Bastian, Waitz, Th. Bridges, and Hyades.

Dixon, Roland Burrage

The independence of the culture of the American Indian. (In *Science*, New York, 1912, n. s. XXXV, no. 889, pp. 46–55.)

A criticism, unfavorable but reserved, of Dr. Graebner's (q. v.) application of the Kulturkreis theory to America, especially to Fuegia. Prof. Dixon, however, leaves open to a certain extent the question of the possible Oceanic origin of the Fuegian plank boat (pp. 53–54).

Dominguez, Luis L.

Los fueguinos del cabo de Hornos y los náufragos de la fragata *Oracle*. (In *Bol. Inst. geogr. argent.*, 1883, IV, 141–143.)

Contains a few unimportant brief notes on the Yahgans of Wollaston Island.

Drake, Edward Cavendish

A new universal collection of authentic and entertaining voyages and travels, London, 1768; same, 1770.

Contains abstracts, including the Fuegian anthropological data, of the voyages of Drake (Famous voyage), Cavendish (Pretty's), van Noort, and Anson.

Drake, Francis. 1578

See Francis Pretty, *a*, and Francis Fletcher.

Duckworth, Wynfried Lawrence Henry

Morphology and anthropology, Cambridge, 1904.

Contains (p. 440) some notes on the Fuegian brain from Manouvrier, *c*, and Seitz, *b*.

Duclos-Guyot, Alexandre

(*a*) [Letter to Dom Pernety.] (In Pernety, Antoine J., Journal historique d'un voyage fait aux îles Malouïnes en 1763 et 1764 . . . et de deux voyages au détroit de Magellan, 2 vols., Berlin, 1769, II, pp. 636–646; Engl. tr., 2d ed., London, 1773, pp. 261–266; abstr. on natives in 2d ed., Paris, 1770, II, pp. 95–97.)

Contains (pp. 642–644; tr., pp. 264–265) short notes on the Alacaluf met at Port Famine, apparently in 1765.

(*b*) Journal. (Extracts, ibid., pp. 653–684; tr., pp. 270–285; abstr. of account of natives in 2d ed., Paris, 1770, II, pp. 110–121.)

Contains (pp. 670–683; tr., 278–285) quite an extensive description of the Alacaluf encountered almost daily from May 30 to June 20, 1766, during the expedition's stay at Port Famine. On pp. 672, 674, 681 are given 5–6 native words, most of them of very doubtful value.

Dumont d'Urville, Jules Sebastien César

Voyage au pole sud et dans l'Océanie sur les corvettes *l'Astrolabe* et la *Zélée* . . . pendant les années 1837–1838–1839–1840, 23 vols., Paris, 1842–1854.

Contains in Histoire du voyage, I, pp. 156, 265–268, 289, a few unimportant notes on the Alacaluf and in Zoologie, II, pp. 208–217, by Honoré Jacquinot, a longer but not important account of the Alacaluf, based on written sources and on very limited personal observation by members of the expedition.

Du Plessis

Journal. (Extracts in Marcel, *a* and c.) For comments see Marcel.

Duse, Samuel August

Unter Pinguinen und Seehunden: Erinnerungen von der schwedischen Südpolexpedition, 1901–1903, tr. by Emil Engel, Berlin, 1905.

Contains (pp. 82–83, 86–87, 97) a few notes on the Yahgans, and (pp. 90–96) a somewhat fuller though not very important account of the Onas. Capt. Duse was the cartographer of the Swedish Antarctic Expedition and had a limited amount of contact with the Onas and Yahgans of Beagle Channel in 1902.

Du Valdailly, E.

Note sur les Fuégiens de la baie de l'Isthme. (In *Bull. Soc. d'anthr. de Paris*, 1876, 2d ser. XI, 293–295.)

A good but quite brief description of Channel Alacaluf with whom the writer spent "quelques heures" at Isthmus Bay.

Dy L.

Die Mission auf Feuerland. (In *Globus*, Braunschweig, 1889, LV, no. 17, pp. 270–271.)

A summary of a conference given by the Rev. Mr. Aspinwall (q. v.); of importance for the study of Yahgan mentality and morality. The account of the latter is rather more favorable than that given by most other first-hand authorities.

Ehrenreich, Paul

(*a*) Die Ethnographie Südamerikas im Beginn des XX. Jahrhunderts unter besonderer Berücksichtigung der Naturvölker. (In *Arch. f. Anthr.*, Braunschweig, 1904, XXXI, n. s. III, 39–75.)

Contains (pp. 61–62 and passim) some notes on the extant literature dealing with Fuegia, and on the culture and relationships of the Fuegians.

(*b*) Die Mythen und Legenden der südamerikanischen Urvölker und ihre Beziehungen zu denen Nordamerikas und der alten Welt. (Supplement zu *Zeitschr. f. Ethnol.*, Berlin, 1905, vol. XXXVII.)

Contains (p. 36) an Ona sun-and-moon myth; nothing else of note on Fuegia. The paper, however, would be an excellent starting point for comparative study in the light of our now much fuller knowledge of Fuegian mythology.

Eizaguirre, José Manuel

Tierra del Fuego: Recuerdos é impresiones de un viaje al extremo austral de la República, Córdoba, 1897; published originally in the daily *Sud América* of 1891.

Contains two Yahgan vocabularies, one of 32 words and expressions on pp. 157–158, the other of 62 words and expressions on pp. 166–167. The author gathered these vocabularies during a visit to Fuegia from Sept. 22 to Oct. 14, 1891, but he does not state the circumstances under which they were taken. The many notes passim (pp. 70, 104–106, 108–113, 159–165, 210–211, 244–246) on the culture of the Yahgans, Alacaluf, and Onas are based partly on personal observation, but are loosely written and not important.

Elliot, George Francis Scott

Chile, New York, 1907.

Contains (pp. 14–19) unimportant notes on the Fuegians and Chonos, based partly on Barclay, Lovisato, Coppinger, Steffen, Byron, *a*. The statement on p. 15 that the Fuegians are accustomed selfishly to throw their wives and children overboard when overtaken by dangerous storms is not derived from any trustworthy source, but this has not prevented it from being repeated in other recent popular works.

Two other more recent works by the same author, The romance of savage life, Philadelphia, 1908, and Prehistoric man and his story, Phila.-London, 1915, contain unimportant references passim to the Fuegians.

Ellis, Alexander John

Report on the Yaagan language of Tierra del Fuego. (In *Trans. Philol. soc.*, London, 1882–1884, pp. 32–44.)

An important and extensive study of Yahgan grammar, giving incidentally many Yahgan words. The paper is based on manuscript notes by the Rev. Mr. Bridges and on the latter's Yahgan translation of St. Luke's gospel. The report also contains Mr. Bridges' original draft in Yahgan of ch. I, vv. 1–13, of St. Luke's gospel, and a Yahgan letter dated Aug. 5, 1880, written to Mr. Bridges by Stirling Maiakaul, a native.

Enrich, Francisco

Historia de la Compañia de Jesus en Chile, 2(?) vols., Barcelona, 1891. (Reference from Fonck, I, p. 5.)

Contains, according to Dr. Fonck, an account of the missions to the Chonos.

Entertaining account of all the countries of the known world, 3d ed., London, 1752.

Contains an abstract of Anson's voyage from Walter's narrative, with some details apparently from Bulkeley and Cummins.

Ercilla y Zúñiga, Alonso de

La Araucana, 1569–1578–1589; many later editions.

Ercilla crossed over to Chiloé in 1558. He describes in canto XXXVI a couple of points of Chilotan culture, which were common also to the Chonoan.

Essendorfer

Begegnung mit Feuerländern in der Magellanstrasse. (In *Verh. Berlin. Ges. f. Anthr. u. s. w.*, 1880, pp. [60]–63.)

An unimportant brief description of a canoeload of Alacaluf met casually in 1878 near Cape Froward.

Estevan, Matheo

"Doctrina Christiana . . . Arte, y Vocabulario, y algunas Platicas de los principales Mysterios" in the Chonoan language. MSS. 1612–13. (Mentioned by Lozano, vol. II, bk. 7, ch. 16, no. 6, p. 560; cf. ibid., ch. 3, no. 35, p. 456.)

The recovery of these valuable manuscripts would throw a flood of light on the whole vexed question of Chonoan relationships and language. "El Padre Techo escrive [Hist. prov. Par., bk. 6, ch. 9, p. 160], que fué el Padre Juan Bautista Ferrufiño, quien hizo esta version del Catecismo en la lengua de los Chonos; pero ciertamente padeció engaño: porque aver sido Autor el Padre Matheo Estevan, como queda dicho, consta de Carta original del Padre Melchor de Venegas," who went in 1612 with Father Estevan to the Guaitecas Islands, "escrita desde los Chonos, al Padre Provincial Diego de Torres en 27. de Noviembre de 1612. 'El Padre Matheo Estevan (dice) es el que ha tomado el trabajo de poner la Doctrina en lengua de los Chonos, y traducilla con un Interprete Chono, que sabe la lengua de Chiloè'" (Lozano, II, p. 456).

Recently Dr. Lehmann-Nitsche has suggested (*d*, p. 220) that the "Chonos" to whom Father Estevan preached were in reality "Patagones," but he advances no other evidence for this hypothesis than the resemblance between the names "Chonos" and *chōn* with its Tehuelche and Ona variations. The derivation is doubtful, to say the least, in spite of the resemblance—cf. for instance the entirely unrelated names, Falkner's Yacana and Bridges' Yahgan. But even granting for the nonce that "Chono" may be "*chōn* hispanizada," the rest of Dr. Lehmann-Nitsche's hypothesis seems to be untenable, both on somatological and cultural grounds.

(1) Somatological. All the available osteological remains from the Guaitecas Islands show cranial kinship more to the Alacaluf and Yahgans than to the mainland tribes. The silence of most of our authorities regarding the stature of the Guaitecas Islanders would suggest that these natives were in all probability of medium height, not tall like the Tehuelches. See discussion in Introduction, pp. 41–42.

(2) Cultural. The Guaitecas Islanders to whom Father Estevan preached had a culture very like the Fuegian, and very unlike the Patagonian. The accounts by Fathers Del Techo and Lozano, based mainly at least on missionaries' letters, show this clearly. To instance one point in particular: Dr. Lehmann-Nitsche himself states (loc. cit.): "está fuera de duda que los Patagones nunca tuvieron canoas"; this may be putting it a little stronger than the available evidence warrants, but what is certain is that within historic times the Patagonians have been emphatically non-canoe-using as a people. But Father Estevan's Chonos were a seafaring people. Not only did the archipelagic conditions demand some form of water craft, but we have clear evidence that the natives actually had such. Father Del Techo, speaking of the Guaitecas "cacique" Delco's earlier interview in 1609 with Fathers Venegas and Ferrufino, says (p. 159): "Trahebat secum in quinque navigiolis, praeter familiam, numerosum comitatum," and Delco in his own testimony unmistakably implies that his people were a seafaring one (ibid.). Father Lozano states that Delco used to come to Chiloé once a year (II, 454), but to get from Guatana in the Guaitecas Islands to Chiloé some kind of water craft was of course required. Goicueta earlier as all writers later who treat of the natives between Chiloé and Taitao Peninsula describe them as using the plank boat.

The sources for Father Estevan's voyage with Father Venegas are: Del Techo, bk. 6, ch. 10, pp. 160–161; Olivares, ch. 10, no. 2, pp. 369, 372–373; and especially Lozano, vol. II, bk. 7, ch. 3 and 16, pp. 445, 453–456, 558–561. Father Del Techo gives 1619 as the date, but Father Lozano's, 1612–13, seems much better substantiated.

Exploration à la Terre de Feu. (In *Rev. Soc. geogr. argent.*, 1885.) (Reference from Dabbene.)

Apparently an unimportant article.

Exquemelin, Alexandre Olivier

Bucaniers of America, 2d ed. of Engl. tr., 2 vols., London, 1684–85; repr. ibid., 1893.

This 2d edition of the English translation of De Americaensche zee-roovers (Amsterdam, 1678) contains in vol. II Ringrose's narrative of the voyage of Sharp.

Fagalde, Alberto

Magallanes: El país del porvenir, Valparaiso, 1901.

Contains (I, 29–263) a history of Magellanic exploration, with, however, practically all the anthropological material omitted.

Falkner, Thomas

A description of Patagonia and the adjoining parts of South America, Hereford-London, 1774; Germ. tr., Gotha, 1775; Fr. tr., Lausanne, 1787; Span. tr. in de Angelis, I; a more accurate Span. tr. by Samuel A. Lafone Quevedo, Buenos Aires, 1911.

Father Falkner gives two much quoted and very perplexing accounts of the "Vuta-Huilliches" (pp. 98–99) and of the "Yacana-cunnees" (pp. 92–93, 111). Neither is based on personal experience. The source for the former is apparently "the relations of the missionaries" (p. 90); the description of the Yacana-cunnees was derived from "Tamu, the Yacana-cunnee Cacique," whom Father Falkner knew personally.

The "Vuta-Huilliches," a branch of the Moluches or Araucanians, were divided, according to the author, into three sections, the Chonos, the Poy-yus or Peyes, and the Key-yus or Keyes; they lived along the coast, and (p. 96), it would seem, on both sides of the Cordillera, from on and near the islands of Chiloé to the Strait. Whom precisely Father Falkner meant by the Poy-yus and Key-yus may never be conclusively settled, although of the Poyas (=Poy-yus?) much is written, especially in the older missionary records.

As for Father Falkner's Chonos, it is very doubtful indeed if they were true Chonos at all. They were supposed to have lived "on and near the islands of Chiloe" (p. 98), and reference is also made (p. 82) to the "country of Chonos, on the continent over against Chiloe." But our original sources show the Chonos to have lived in the main on the islands south of Chiloé. The Chonos, with the other "Vuta-Huilliches," are said (p. 99) to have been bigger-bodied than their neighbors to the north and to have spoken a "mixture of the Moluche and Tehuel languages." This, too, is contrary to what we know of the true Chonos from original sources. Cf. Introduction, pp. 34–36, 41–42. The name Chono was sometimes used in a very loose sense, and perhaps Father Falkner's authority had reference to natives of the Chilotan archipelago or of the adjoining mainland. One thing, however, is clear—that is, the account of the Chonos is as confused as it is confusing.

The identity of the "Yacana-cunnees" is almost equally problematical. From the statements that they inhabited the eastern Fuegian Islands (p. 91), lived chiefly on fish (p. 111), and had "light floats, like those of Chiloe" (p. 111; cf. also pp. 92–93), one might suppose they were Canoe Indians; that they were sometimes carried away as slaves by the Huilliches and Tehuelhets (p. 111) would suggest the same conclusion. But "yacana-cunnee" apparently means "foot people" (Lehmann-Nitsche, *d*, pp. 229–230), and besides they were a tall people (Falkner, p. 111); while other details of the description imply that they were a land people, for they lived on both sides of the Strait (p. 111), and those on the south side had to *cross* the Strait to have communication with the Yacana cacique, Tamu's people (pp. 92–93). Hence, they must have been either Tehuelches or Onas or both. Finally, they used to have frequent communication with the Spaniards and French who came from the Falklands to get wood (p. 91), and used to "catch ostriches with their bowls" (p. 111); but the French from the Falklands had contact with the Alacaluf and Tehuelches (cf. Bougainville, Duclos-Guyot), not, as far as the records go, with the Onas; the rhea is confined to the mainland, and the bolas had not been introduced among the extreme southern Patagonians themselves until about the middle of the eighteenth century (Outes, *a*, pp. 427, 254).

It looks, therefore, as if Father Falkner's Yacana-cunnees were the extreme southern Patagonians. They seem, however, to have been confused to some extent with the Alacaluf in his description. As far, then, as Onan anthropology is concerned the most that can be inferred from his account of the Yacana is that perhaps at that date the Onas were in communication with their mainland cousins and may possibly have used at times some kind of water craft to cross the Strait.

From the foregoing we are justified in concluding that in the present state of the evidence it would not be safe to use Father Falkner's accounts of either the Chonos or the Yacana-cunnees as giving dependable data for Chonoan or Onan anthropology.

Featherman, Americus

Social history of the races of mankind, 7 vols., London, 1881–1891.

Contains (3d div., Chiapo- and Guarano-Maranonians, pp. 501–508) a lengthy description of the Fuegians, based on about a dozen of the better authorities from Capt. Cook to Capt. Bove; frequent inaccuracies.

Feilitzen, von

Om den italienska expeditionen till Patagonien och Eldslandet under ledning af löjtnant G. Bove. (In *Ymer*, Stockholm, 1883, III, 77–93.)

Account taken from Capt. Bove's report published at Genoa.

Fernández y González, Francisco

Los lenguajes hablados por los indígenas de la América Meridional, Madrid, 1893.

Contains (pp. 72–74) a paragraph on the Chonoan language based on Brinton, and a few notes on Yahgan grammar from Adam.

Ferrufino [*or* **Ferrufiño**], **Juan Bautista**

"Decem Dei mandata & solemnes Christianorum preces, ac formula(m) detestandi peccata" in the Chonoan language. MSS. 1609. (Mentioned by Del Techo, bk. 6, ch. 9, p. 160.)

According to Father Lozano (II, 456), it was Father Estevan, not Father Ferrufino, who made the translations into Chono. There seem, however, to be good reasons for concluding that the latter, too, made translations. Father Del Techo's account of the Chonos and Chono missions is based largely, at least, on original sources, probably on missionaries' letters (pp. 161, 181). Father Ferrufino, moreover, is reported (Del Techo, loc. cit.) to have made his translations in two days with the aid of a Chono interpreter, while Father Estevan, although he, too, used an interpreter, actually learned the Chono language. Finally, the texts translated by the former are entirely different, according to our sources, from those translated by the latter.

Unfortunately, the Ferrufino manuscript, like the Estevan translations, has been lost, perhaps beyond recovery.

The original sources for Father Ferrufino's voyage and writings are: Del Techo, bk. 6, ch. 8-9, pp. 159-160; Lozano, vol. II, bk. 5, pp. 34-44; Olivares, ch. 10, no. 1, pp. 367-368.

Feuilleret, Henri

Le détroit de Magellan, Tours, 1880.

Contains (pp. 130-139) an unimportant account of the Alacaluf, based chiefly on Bougainville, and (pp. 238-239) a "Note sur les Fuégiens" from Wyse.

Figuier, Louis

The human race, London, 1872.

Contains (pp. 416-419) an unimportant and in some points inaccurate account of Fuegian culture and languages.

Fitz-Roy, Robert

(*a*) Proceedings of the second expedition 1831-1836, London, 1839. (Vol. II of Narrative of the surveying voyages of H. M. S. *Adventure* and *Beagle*.)

One of our most important sources for the culture of the Alacaluf of the Strait and Patagonian Channels (the latter natives called by Admiral Fitz-Roy Chonos), less important for Yahgan (Tekeenika, Yapoo) culture, still less for Onan (Oensmen). The most valuable sections are: General division of tribes, pp. 129-133; "Tekeenika," pp. 137-140; Alikhoolip, pp. 140-141; "Huemuls," 141-142; "Chonos," p. 142; Alikhoolip and "Tekeenikas," pp. 175-189; "Chonos," pp. 189-200. In addition there are numerous more or less important details passim on the natives; see especially: on the Yahgans, pp. 203, 208-211, 214-215, 220-222, 323; on the Onas, pp. 121-122, 205-206, 325-326; on the Chonos proper, pp. 359-395 passim.

Fitz-Roy, Robert—Continued

(*b*) Appendix to same vol. II.

Contains an important English-Yahgan-Alacaluf vocabulary of 208 words on pp. 135-140, and a vocabulary of 3 "Chonoan" (?) words on p. 142. The appendix also includes some somatological data (measurements of 2 men, etc.) by Dr. Wilson on pp. 142-147, and long extracts from Byron's Loss of the *Wager* on pp. 124-134.

It should be noted that the first volume of the Narrative of the *Adventure* and *Beagle* contains extensive and anthropologically important extracts from Admiral Fitz-Roy's journal of the first expedition.

Few Magellanic explorers have had the ample opportunities for first-hand investigation of the natives that Admiral Fitz-Roy had. He took part in the first expedition from Dec., 1828, to the end as captain of the *Beagle*, and commanded the second expedition. Altogether, he spent considerably over a year in the Fuegian archipelago, during which time he had very frequent contact with the native tribes, particularly the Alacaluf. Moreover, he derived a great portion of his data "from the natives who went to England in the *Beagle*, and from Mr. Low, who has seen more of them [Fuegians] in their own country than any other living person" (*a*, p. 129). In some respects, however, these native informants were not, it would seem, unimpeachable witnesses. Mr. Low was the captain of the *Adeona;* his intercourse was chiefly with the Channel Alacaluf (*a*, p. 182), whose language, however, he did not speak (*a*, p. 193).

The Alacaluf-Yahgan vocabulary was gathered from the four natives brought to England, three Alacaluf and one Yahgan. "I found great difficulty in obtaining words, excepting names for things which could be shown to them and which they had in their own country" (*a*, p. 188). This vocabulary is discussed at length in the Introduction to the present bibliography. Admiral Fitz-Roy did not learn either the Yahgan or the Alacaluf language.

Admiral Fitz-Roy's division of the Fuegian tribes has been abandoned, and some few of his cultural data would need revising, but even after the lapse of these eighty years he still remains our most important authority for Alacalufan culture, and little indeed has been added to our knowledge of Alacalufan culture since his time.

Fletcher, Francis

The world encompassed by Sir Francis Drake, collected out of the notes of Master Francis Fletcher preacher . . . and others, London, 1635, 1652-1653 (1st ed., 1628); Osborne, vol. II; Purves; Hakl. soc., vol. XVI, ed. by W. S. W. Vaux, London, 1854; extr. in Hyades, *q*, pp. 2-4; abstr. in Bancarel, vol. II, and in Henry, vol. I.

Contains a good though not extensive description of Alacaluf met near Elizabeth Island in 1578. Fletcher's account of the natives is much fuller than Pretty's.

Flower, William Henry

Catalogue of the specimens illustrating the osteology and dentition of vertebrated animals, recent and extinct, contained in the museum of the Royal college of surgeons of England, part I, Man, London, 1879; 2d ed., ibid., 1907.

Contains measurements of most of the following skeletal remains: (1) Chonoan (1st ed., p. 178; 2d ed., pp. 309–310): nos. 1016–1018, 1020, 4 crania (of which 1 ♀, 1 ♂ mutilated, 1 ♀ mutilated, and 1 ♀?); no. 1019, lower jaw, 2 ossa innominata, and a scapula; (2) Alacalufan (1st ed., p. 179; 2d ed. p. 312): no. 1025, ♂ cranium and parts of skeleton, previously described by Huxley (q. v.); (3) Yahgan (1st ed., p. 180; 2d ed., p. 314): nos. 1026–1027, 1 ♀ and 1 ♂ cranium; (2d ed., pp. 312–313); nos. 1025^2–1025^8, 1027^1; (4) Fuegian (2d ed., p. 312), no. 1025^1, 1 ♀ skeleton. The Chonoan remains collected by Dr. Cunningham are classified in the Catalogue as Patagonian, but it is fairly clear that they are Chonoan, for no. 1020 is from the Chonos Islands, and nos. 1016–1019 are apparently the ones found in a small cave at Port Melinka, in the Guaitecas Islands (Cunningham, pp. 335, 436).

Most of the above Alacalufan and Yahgan material was more fully studied and described by Dr. Garson (q. v.).

Fonck, Francisco Adolfo

Viajes de Fray Francisco Menendez, 2 vols., Valparaiso, 1896–1900.

Dr. Fonck in this scholarly study gives incidentally a summary of and the references to most of the sources for the history of the mission Chonos. See especially the following pages: I, 5; II, 28–29, 33, 43, 87, 102, 151, 172, 192–193.

Forster, George

A voyage round the world in His Britannic Majesty's sloop, *Resolution*, commanded by Capt. James Cook, during the years 1772, 3, 4, and 5, 2 vols., London, 1777.

Contains (II, 498–506, 510) short descriptions of the natives met at Christmas Sound and Good Success Bay in Dec., 1774, by Capt. Cook's second expedition; based on the journal of Johann Reinhold Forster. See comments under J. Cook, *b*.

Forster, Johann Reinhold

Observations made during a voyage round the world, London, 1778; Germ. tr. with additions by George Forster, 3 vols., Berlin, 1784.

Arranged in topical rather than chronological order. Contains numerous though not important data on the Fuegians (ch. 6, pp. 212–609, passim). The writer, with his son George, accompanied the second Cook expedition.

Foster, Henry. 1829

See W. H. B. Webster.

Foy, Willy

Führer durch das Rautenstrauch-Joest-Museum der Stadt Cöln, 3d ed., Cöln, 1910.

Semipopular in tone. Dr. Foy agrees with Dr. Graebner (q. v.) on the question of the Oceanic origin of American aboriginal culture in general and of the Fuegian in particular. See especially pp. 26, 151.

Fréville, Anne François Joachim de

Histoire des nouvelles découvertes faites dans la Mer du Sud en 1767, 1768, 1769, & 1770, 2 vols., Paris, 1774.

Contains (I, 18–24) an account of the natives of Good Success Bay, based on Capt. Cook's first voyage.

Frezier, Amédée François

Relation du voyage de la mer du Sud aux côtes du Chili, du Pérou et du Brésil, fait pendant les années 1712, 1713, & 1714, 2 vols., Amsterdam, 1717 (orig. Fr. ed., Paris, 1716); Engl. tr., London, 1717; Dutch tr., Amsterdam, 1718, 1727; Germ. tr., Hamburg, 1745; Span. tr. of parts relating to Chile, Santiago de Chile, 1902; see also de Brosses, II, 204–219; abstr. in Prévost, vol. XV.

Frezier's expedition met no natives, but he gives (1717 Fr. ed., I, 58–59; de Brosses, II, 208–209) a few details on natives met probably at Good Success Bay by one of Brunet's officers in 1712 and by Villemorin in 1713, and some data on the Chonos obtained in person from Dom Pedro Molina and others (ibid., pp. 147–148, and 211–212, respectively). Not important.

Friederici, Georg

(*a*) Die Schiffahrt der Indianer, Stuttgart, 1907.

Contains (pp. 41–45) excellent descriptions of the Fuegian bark canoe and plank boat, based on museum material and the best written sources.

(*b*) Ein Beitrag zur Kenntnis der Trutzwaffen der Indonesier, Südseevölker und Indianer. (In *Baessler-Archiv, Beiträge zur Völkerkunde, herausgegeben aus Mitteln des Baessler-Instituts*, Beiheft VII, Leipzig–Berlin, 1915.)

Contains some few data passim on Fuegian offensive weapons. Cf. pp. 34, 43, and especially pp. 13 and 66–67 on the supposed Fuegian "Wurfkeule." See discussion of the throwing club in Subject Bibliography, p. 215.

Froger, François

Relation d'un voyage fait en 1695. 1696. & 1697. aux Côtes d'Afrique, Détroit de Magellan, Brezil, Cayenne & Isles Antilles, par une Escadre des Vaisseaux du Roy, commandée par M. de Gennes, Paris, 1698; Amsterdam, 1699, 1715; Engl. tr., London, 1698; extr. in de Brosses, II, 104–112; abstr. in Prévost, XV.

Contains (1698 ed., pp. 97–98; tr., pp. 74–76; de Brosses, II, 109; cf. also pp. 107, 111) a good though short account of Alacaluf met at Port Famine in 1696. "Ils se servoient aussi de gros caillous taillez pour couper le bois" (p. 97; de Brosses, II, 109).

Furlong, Charles Wellington

(*a*) Amid the islands of the Land of Fire. (In *Harper's monthly mag.*, New York, Feb., 1909, CXVIII, 335–347.)

Contains a few somatological notes on the natives and a short account of their relations with the white people. Two photographs of types; one Yahgan word, p. 344.

(*b*) The southernmost people of the world. (Ibid., June, 1909, CXIX, 126–137.)

An extensive and excellent description of the present-day Yahgans, especially their social and moral culture. The article includes also the following: On p. 127 maximum, minimum, and average stature measurements of 14 Yahgan men; on p. 129 a map of former and present Yahgan territory; passim, about 10 Yahgan words.

(*c*) Into the unknown land of the Onas. (Ibid., Aug., 1909, CXIX, 443–455.)

A narrative of the author's journey over the mountain range north of Harberton to the Atlantic coast with Ona guides.

(*d*) The vanishing people of the Land of Fire. (Ibid., Jan., 1910, CXX, 217–229.)

An extensive and important account of Onan culture, especially social and moral culture. The article includes also maximum and average stature measurements of 11 Ona men (p. 220), about 15 Ona words (p. 225 and passim), map of present and former Ona distribution (p. 225).

(*e*) Cruising with the Yahgans. (In *Outing mag.*, New York, Apr., 1911, LVIII, 3–17.)

Contains cultural data passim, also a map and 8 photographs.

(*f*) The toll of the Straits. (Ibid., Oct., 1911, LIX, 3–22.)

Parts of the article throw a little light on Fuegian character. One Ona photograph.

Furlong, Charles Wellington—Continued

(*g*) Hunting the guanaco. (Ibid., Oct., 1912, LXI, 3–20.)

Contains the most complete extant account of the Onas' methods of hunting the guanaco and good notes on the uses to which they put its skin. On p. 7 an Ona guanaco legend, and passim 1 Yahgan and 11 Ona words.

(*h*) The lure of the Antarctic. (In *Harper's weekly*, New York, May 11, 1912, LVI, 16–17.)

Contains one paragraph on the Yahgans and one Yahgan photograph.

Dr. Dabbene has the following title in his bibliography: Recorriendo las islas de Tierra del Fuego, artículos publicados en *El Diario* de Buenos Aires, 1910, nos. 6495–6506. Prof. Furlong tells me that these must be articles written up from interviews with him.

(*i*) Stone age men of the Land of Fire. (In *Travel*, New York, Oct., 1915, XXV, no. 6, pp. 9–13.)

A good popular summary of Ona culture, with a few notes on that of the Yahgans. Some excellent photographs, illustrating Ona culture and physical type.

(*j*) The Alaculoofs and Yahgans, the world's southernmost inhabitants. (In *Proc. 19th Internat. congr. of Americanists*, Washington, 1915, pp. 420–431, 1917.)

An important contribution to our knowledge of Yahgan culture. Five Yahgan words expressing numbers. Stature measurements, maximum, minimum, and average, of 14 Yahgan men.

(*k*) The Haush and Ona, primitive tribes of Tierra del Fuego. (Ibid., pp. 432–444.)

A valuable paper containing some excellent new material on Ona culture, especially psychical culture. Stature measurements, maximum and average, of 11 Ona men. The linguistic material consists of a short Haush vocabulary of 6 words, a longer Ona or Shílk'nam one of 94 words and expressions, and several Ona and Yahgan words passim, all being material gathered directly from the natives. Of special interest, too, is the author's discussion of the little known Haush subtribe, whom, however, he classes as a distinct linguistic stock.

In both the preceding papers Prof. Furlong emphasizes the rôle which environment has played in the development of Fuegian culture.

Prof. Furlong, by letter of May 7, 1915, has kindly furnished me with the following list and description of studies he is preparing for publication:

(*l*) [Explorations in the Fuegian archipelago] [Book]:

"The bulk of this material will naturally relate to my experience and observations of the Yahgan and Ona tribes and the lands they inhabit."

Furlong, Charles Wellington—Continued

(*m*) [The Ona bow and arrow] [Article]:

"This will deal with the material of which these bows are made, methods of making, their purpose and the way they are used, including as far as possible the Indian names for the material and parts and any interesting facts relating to the subject."

(*n*) [Patagonian and Fuegian foot prints and hand prints] [Article]:

"This article will contain comments on a collection of some fifty hand prints and foot prints I took from the Tehuelches, Yahgans, and Onas. The majority of these prints are from the Ona people of both sexes, from babies to adults. I shall also make use of a few circumference line tracings of hands, in connection with this article."

(*o*) [Yahgan and Ona songs and speech] [Article]:

"This will be based on about a dozen phonographic records I secured from the Ona and Yahgan Amerinds. A duplicate set of these was sent to Prof. Stumpf and Dr. von Hornbostel of Berlin University for their phonographic archives." Prof. Furlong will be very largely under obligation to Dr. Erich von Hornbostel for this article. Cf. note by Dr. von Hornbostel in *Zeitschr. f. Ethn.*, Berlin, 1912, XLIV, 831; also Coriat, pp. 205-206.

(*p*) [Comments on the Ona and Yahgan languages] [Article]:

"This will contain a list of words secured by me and comments on the character of speech and its usage; also a brief history of the famousr Bridges dictionary."

The two following articles appeared after my manuscript had gone to the printer.

(*q*) Some effects of environment on the Fuegian tribes. (In *Geographical review*, New York, Jan., 1917, III, 1–15.)

The best extant treatment of the subject. Yahgan and Ona stature measurements as in *b* and *d*. 3 Yahgan words and one Onan. 2 maps.

(*r*) Tribal distribution and settlements of the Fuegians. (Ibid., Mar., 1917, III, 169–187.)

An important article dealing with the territories, nomenclature, decrease and causes thereof, and settlements of the Fuegian tribes. 3 maps, especially one showing the hunting grounds of the various Ona clans.

In addition to the above studies, published and in preparation, Prof. Furlong has in manuscript extensive field notes on the Fuegian tribes, including the above-mentioned Yahgan, Shilk'nam, and Mánekenkn vocabularies. Cf. also Coriat.

The author's published articles are important contributions to Yahgan and Onan cultural anthropology, and his contemplated publications will throw much light not only on some little-known phases of Fuegian culture but on the languages and some departments of somatology as well. Of the published articles listed above, *b*, *d*, *j*, and *k*, *q* and *r* are by far the most important.

His contributions to Fuegian anthropology are based on careful observation and inquiry made during an expedition to Fuegia in 1907-8. He spent about three months among the Yahgans and Onas. For the greater part of this time he traveled with Yahgans by boat and canoe through Beagle Channel south to Ponsonby Sound, and with Onas afoot and in the saddle from Harberton through the heart of Tierra del Fuego Island. Many of his cultural data are, moreover, derived verbally from the very best first-hand authorities, the Lawrence and Bridges brothers.

The six Haush words were gathered from Pelota, an old Haush man living at Harberton, with the assistance of a Yahgan who spoke a few words of Haush and but very little English. Nearly all the Ona nouns were obtained by sketching the object and having the natives give the equivalent in their own tongue, a game which seemed to interest them very much, for they would repeat the term as often and distinctly as desired.

Two extensive collections made by Prof. Furlong are now in the American Museum of Natural History, New York, and in the Peabody Museum at Harvard. The former is especially rich in Onan artifacts. Two smaller collections made by him are in the Peabody Museum at Salem, Mass., and in the Museum of the American Indian, Heye Foundation, New York.

Gajardo, Ismael

Viaje de la escampavía "Huemul," Marzo, 1902. (In *An. hidr. mar. Chile*, Valparaiso, 1905, XXV, 25–45.)

Contains a few unimportant notes (pp. 32-34) on the modern Yahgans.

Galippe, V.

See Hyades, *e*.

Gallardo i Andrade, Bartolomé Diez

Relacion del sargento mayor don Bartolomé Gallardo hecha en Lima de órden de VE. sobre el viaje que hizo al reconocimiento de las poblaciones de los ingleses con todo lo sucedido en el y paraje donde llegó, Lima, Apr. 21, 1675. (In *An. hidr. mar. Chile*. 1886, XI, 525–537.)

The Gallardo expedition of 1674-75 got as far as the Gulf of Peñas, having crossed the Isthmus of Ofqui. Some of the data in the Relacion on pp. 527, 530-533 have a slight bearing on the vexed question of Chonoan linguistic relations.

Gallardo, Carlos R.

Los Onas, Buenos Aires, 1910.

An important and indispensable monograph, treating in the minutest detail every department (except mythology) of Ona (Shílk'nam) culture, and including valuable material on Ona linguistics. Somatology is treated very briefly.

Contents: Environment, pp. 1–93; divisions, names, and origin of Onas, pp. 95–108; descriptive somatology, pp. 109–117; distribution, pp. 118–120; culture, pp. 121–358; language, pp. 359–395. The section on language includes some valuable though meager data on grammar and many Ona words passim; there are also many Ona words scattered through the whole book. Copious illustrations, although many of the photographs have been considerably retouched.

Dr. Gallardo's work is based primarily on personal observation during two (or more?) visits to Tierra del Fuego, on the study of museum material—and perhaps to some extent on written sources, although none are cited in the work. In addition he has received much information from Mr. Lucas Bridges, "con cuya ayuda", as he writes, p. 364, "he podido realizar esta obra. Un cariñoso recuerdo también para el indio Pedro, muerto fuera de sus montañas y sus bosques; mucho fué lo que él me enseñó."

Garbe, R.

Glossar der feuerländischen Sprache von Julius Platzmann, Leipzig, 1882. (In *Göttingsche gelehrte Anzeigen*, Göttingen, 1883, I, 336–376.)

A rather sharp criticism of Dr. Platzmann's Yahgan vocabulary, followed by a lengthy and important treatise on Yahgan grammar, based (p. 341) on ten letters written by the Rev. Mr. Bridges to Prof. Max Müller. Many Yahgan words passim

García [Martí *or* Alsué], José

(*a*) Diario del viaje i navegacion hechos por el padre José García de la Compañia de Jesus desde su mision de Cailin, en Chiloe, hacia el sur en los años 1766 i 1767. (Published first in von Murr's Nachrichten, vol. II; then in *Anales Universidad de Chile*, 1871, vol. XXXVIII; finally with extensive notes by Diego Barros Arana in *An. hidr. mar. Chile*, Santiago, 1889, XIV, 3–47.)

One of the most important early sources on the culture of the Chonos (and Alacaluf?). The cultural data are scattered through the narrative; see especially pp. 6, 14–15, 20–21, 23–25, 28–32, 37–38, 42 (of the edition by Dr. Barros Arana). The tribal divisions (pp. 31–33) are given with more detail in the next reference. Map.

(*b*) [Letter of Oct. 31, 1783, on the tribal and linguistic divisions of the natives between Chiloé and the Strait.] (In Hervás y Panduro, *a* and *b*.)

García [Martí *or* Alsué], José—Contd.

For comment see Hervás.

Father García left the Cailin Mission on Oct. 23, 1766, with 5 Spaniards and 34 Chonos. They crossed the Isthmus of Ofqui and got as far as the Guaianeco Islands, where they remained a little while, returning to Cailin Jan. 30, 1767. Father García probably used an interpreter in giving his missionary message to the Guaianeco Islanders (pp. 30–31), as the whole tenor of his letter to Father Hervás seems to imply that he did not speak the language(s) of the natives. His cultural data, based on personal observation chiefly, are therefore more dependable than his linguistic data.

Garson, John George

On the inhabitants of Tierra del Fuego. (In *Jour. Anthr. inst.*, London, 1885, XV, 141–157.)

An important study of the following osteological material in the Museum of the Royal College of Surgeons of England: no. 1025, ♂ Alacalufan skull (the same one that Owen, Huxley, and Flower had described) and parts of skeleton; nos. 1025^{A-F}, 1026–1027, 6 ♂ and 2 ♀ Yahgan skulls, and 3–4 incomplete skeletons, obtained directly or indirectly through the South American Missionary Society. Dr. Garson's paper also contains a review passim of the somatological evidence to 1885, and a good summary of Fuegian culture, based on Fitz-Roy, Bridges, and Bove.

Gasperi, G. B. de

La diminuzione della popolazione indigena della Terra del Fuoco. (In *Arch. per l'anthr. e l'etnol.*, Firenze, 1913, XLIII, 163–166; summary in *Riv. geogr. ital.*, Firenze, 1913, XX, 627–628.)

Statistics of and a statement of eight causes for he rapid diminution of the native Fuegian population from 1880 to 1913. A good treatment of the subject.

Gay, Claudio, *ed.*

Historia fisica y politica de Chile: Documentos, 2 vols., Paris, 1846–1852.

Contains the following documents bearing on the Chonos and Channel Alacaluf: vol. I: no. 16, Carta sobre la muerte de Valdivia, pp. 176–178; no. 30, Informe cronológico by Ascasubi, pp. 300–400; no. 36, Pietas' Noticia, pp. 486–512; vol. II: Olaverria's Informe, pp. 13–54; Goicueta's narrative of Cortés Hojea's voyage, pp. 55–98.

Gennes, de. 1696

See Froger.

Geoffroy Saint-Hilaire, Étienne

Portrait d'un Fuégien. (In *Bull. Soc. d'anthr. de Paris*, 1861, II, 535–536.)

An unimportant ten-line description of a portrait (not reproduced in Bulletin) executed by M. le commandant Cabaret de Saint-Cernin and presented by M. Geoffroy Saint-Hilaire.

Gerlache, Adrien de

(*a*) Relation sommaire du voyage de la Belgica 1897–1899. (In *Bull. Soc. roy. belge de géogr.*, Bruxelles, 1900, XXIV, no. 5, pp. 417–531.)

Contains meager, unimportant notes on the Fuegians.

(*b*) Quinze mois dans l'Antarctique, 2d ed., Paris-Bruxelles, 1902.

Contains (pp. 86–94) a fair description of the Alacaluf, Yahgans, and especially Onas.

The author had some contact with the natives in 1897 and 1899, but the above descriptions give very little information about them. See Dr. Cook's fuller account.

Giglioli, Enrico Hillyer

(*a*) Viaggio intorno al globo della reale pirocorvetta italiana Magenta negli anni 1865–66–67–68 sotto il comando del capitano di fregata V. F. Arminjon, Milano, 1875.

Contains (pp. 947–951) an unimportant account of the Fuegians, based chiefly on information given by residents of Punta Arenas, and on the then extant literature, especially Fitz-Roy and Cunningham. Dr. Giglioli himself apparently saw no natives except at Punta Arenas; a subofficer encountered casually a group of Alacaluf.

(*b*) Materiali per lo studio della "età della pietra" dai tempi preistorici all' epoca attuale. (In *Arch. per l'antrop. e l'etnol.*, Firenze, 1901, XXXI, 19–264; reprint, Firenze, 1901.)

Contains (*Arch.*, pp. 258–262; repr., pp. 242–246) descriptions of Fuegian artifacts, and (pp. 262 and 246, respectively) particularly of 6 bolas balls and a "mortaio di lava" found near Cape Peñas on Tierra del Fuego Island and now in Dr. Giglioli's collection.

Gilliss, James Melville

The United States naval astronomical expedition to the southern hemisphere during the years 1849–'50–'51–'52, vol. I, Chile, Washington, 1855.

Contains (pp. 38, 73) unimportant notes on the Chonos and modern Chilean plank boats.

Girard de Rialle, Julien

(*a*) Les peuples de l'Afrique et de l'Amérique: Notions d'ethnologie, Paris, [1880].

Contains (pp. 132–135) a short, semipopular account of the Fuegians, based on d'Orbigny, de Rochas. Not important.

(*b*) Les habitants de la Terre-de-Feu au Jardin d'acclimatation. (In *Revue scientifique*, Paris, 1881, XXVIII, 3d ser. II, 476–479.)

An unimportant account of the Fuegians, based on the older written sources and on personal observation of the Hagenbeck group of Alacaluf in the Jardin d'Acclimatation.

Giuffrida-Ruggeri, Vincenzo

Un cranio Guayachì, un cranio (incompleto) Ciamacoco e un cranio fuegino. (In *Atti Soc. romana di antrop.*, Roma, 1906, XII, 235–258.)

Contains (pp. 247–254) a description and measurements of an adult ♂ Fuegian skull, the gift of a Salesian missionary Bouvaire [Beauvoir?]. "Il cranio e interessante per il suo tipo sferoidale-ipsicefalo" (p. 250). Dr. Sera (q. v., p. 194) thinks this skull is probably of Patagonian origin. Illustrations.

Godoy, Pedro

Tierra del Fuego: Informe de su gobernador. (In *Bol. Inst. geogr. argent.*, Buenos Aires, 1893, XIV, cuad. 5–8, pp. 386–397.)

Contains (p. 397) a census of the natives of Argentine Fuegia; unimportant.

Goicueta [*or* **Goizueta**], **Miguel de**

Viaje de Juan Ladrillero 1557–58. (In Gay, Documentos, II, 55–98; ed. with notes by Vidal Gormaz in *An. hidr. mar. Chile*, Santiago, 1879, V, 482–520.)

One of the most important early sources on the anthropology of the canoe-using Indians between Coronados Gulf and the Strait. See especially the descriptions of the natives encountered at the north end of Fallos Channel ("bahia de Nuestra Señora del Valle") on pp. 484–485, at the south end of Picton Channel (or vicinity) on pp. 505, 509, at Coronados Gulf and Ancud Bay on pp. 514–516. Of equal importance are the accounts of the natives between Corcovado Gulf ("golfo de San Martin") and Cape Tres Montes ("cabo Ochabario") on pp. 518–519, and of those between Cape Tres Montes and the "Strait of Ulloa" (?) on pp. 519–520. On one of the islands between Adventure Bay and the Guaitecas Archipelago were found (p. 513) some abandoned huts and potato patches.

The Ladrillero expedition sailed from Valdivia on Nov. 17, 1557, with two (or three?) vessels, the *S. Luis* and the *S. Sebastian*, commanded, respectively, by Ladrillero and Cortés Hojea. They first touched land at the north end of Fallos Channel. The ships became separated, and Cortés Hojea sought shelter somewhere near the southern end of Picton Channel, where he remained from February to July of 1558 rebuilding the *S. Sebastian*. On the return trip some days were spent in and around Ancud Bay. The account of the natives between Corcovado Gulf

Goicueta [*or* **Goizueta**], **Miguel de**—Con.

and C. Tres Montes is apparently based on observations by Cortés Hojea made during the Ulloa expedition in 1553–54, of which he was a member (p. 489; Rosales, *a*, vol. I, 216), as no natives are mentioned as having been seen in this territory on the 1557–58 expedition.

Góngora Marmolejo, Alonso de

Historia de Chile desde su descubrimiento hasta el año de 1575, 1575. (Ed. in *Col. hist. Chile*, Santiago, 1862, vol. II.)

Contains (ch. 58, p. 153) a detailed description of the plank boat.

González de Agüeros

Descripcion historial de la provincia y archipiélago de Chilóe en el Reyno de Chile, y obispado de la Concepcion, Madrid, 1791.

Father Agüeros spent six years in the province and archipelago of Chiloé. He made liberal use of the works of Fathers Ovalle and Lozano and others in compiling his Descripcion. It contains interesting data on the Chonos. See especially the following: plank boats, pp. 66–67; Chilotan weirs, pp. 70–71; seal hunting, p. 73; territory, description (from Lozano) and division (from José García) of Chonos, pp. 185–186, 188. The narratives on pp. 217–248 of the two missionary expeditions of Fathers Marin and Real in 1778–79 and of Fathers Menendez and Bargas in 1779–80 into the Chonos' territory contain some notes of value for the study of the history and linguistic relationships of the Chonos

Graebner, Fritz

(*a*) Die melanesische Bogenkultur und ihre Verwandten. (In *Anthropos*, St. Gabriel-Mödling bei Wien, 1909, IV, 726–780, 998–1032.)

Dr. Graebner maintains that the same stratification of cultures is found in America as in Indo-Oceanica, the successive waves having passed from the latter over to the former. The Fuegians would represent the earliest of these waves, and culturally occupy the same low plane relatively to the other American peoples ("als Randbewohner der Ökumene"), as the Tasmanians did and the southeastern Australians do to the other Indo-Oceanic peoples. The skin mantle, the beehive hut, and especially the half-hitch coiled basketry, found in both archaic areas, would thus be inheritances from a common cultural ancestry, not the result of convergence (p. 1014). See also p. 1018 on Fuegian bark canoe, plank boat, and bow.

(*b*) Methode der Ethnologie, Heidelberg, 1911.

An exposition and elaboration of the whole "Kulturkreis" theory. Contains (p. 149) a few remarks on the application of the theory to Fuegia.

Graebner, Fritz—Continued

(*c*) Gewirkte Taschen und Spiralwulstkörbe in der Südsee. (In Ethnologica im Auftrage des Vereins zur Förderung des städtischen Rautenstrauch-Joest-Museums für Völkerkunde in Cöln, herausgegeben von Dr. W. Foy, Leipzig, 1913, II, Heft 1, pp. 25–42.)

Contains a short notice of the Fuegian half-hitch coiled basketry (p. 39); of interest for comparative study of this kind of basketry.

(*d*) Amerika und die Südseekulturen. (Ibid., pp. 43–66.)

An answer to Krause (q. v.). Contains on pp. 47–48 further comments on the resemblance of Fuegian to archaic Indo-Oceanic culture.

Griewe, Wilhelm Frederick

Primitives Südamerika, Cincinnati, 1893.

Contains (p. 234) a very short unimportant account of the Alacaluf. The same account is found in the author's History of South America, Cleveland, 1913, pp. 152–154.

Grubb, W. Barbrooke

An unknown people in an unknown land (Paraguayan Chaco), London, 1911.

The author spent four years among the Yahgans at the Falkland Islands Mission (p. 26), but gives no information about them, except that they believed the moon to have turned a blood-red color after the massacre by them of the English missionaries, Capt. Fell and his party (p. 139).

Guerrero Bascuñán, Mariano

Memoria que el delegado del supremo gobierno en el Territorio de Magallanes . . . presenta al señor Ministro de Colonizacion, 2 vols., Santiago de Chile, 1897. (Reference from review in *Annales de géogr.*, Paris, 1898, vol. VII, Bibliographie de 1897, p. 270.)

Toward the end of the first volume, according to the reviewer, L. Gallois, there is an account of the aborigines. "Obra rara por haberse quemado casi toda la edición del último tomo" (Anrique).

Guerrero Vergara, Ramon, *ed.*

Los descubridores del estrecho de Magallanes i sus primeros esploradores. (In *An. hidr. mar. Chile*, Santiago, 1880–81, vols. VI–VII; sep. repr., ibid. 1880.)

Contains the original narratives of Ladrillero, Juan de Mori and Sarmiento, an account of Drake's voyage based chiefly on Pretty's narrative, and (VI, 435–452) an excellent "reconstruction" of the voyage of Ulloa in 1553–54, gathered

Guerrero Vergara, Ramon, *ed.*—Continued

from the early Chilean sources. Ulloa departed from Valdivia toward the end of October, 1553, and, following the coast line and channels, entered apparently the Strait. The expedition made many landings and had some contact with the natives, but the fragmentary details that have come down to us contain only meager anthropological material. These few data, however, are of interest, inasmuch as they are the earliest extant accounts of the Chonos and Patagonian Channel natives.

Guilbaudiere, Iouhan de la

Description des principaux endroits de la Mer du sud, depuis les 52. degreź 30. minutes sud, où est le d'Estroit du Magelland jusqu'au 41. degrez Nord, qui est l'jsle de Calliforne faite sur les lieux par le s^r Iouhan de la Guilbaudiere: Dressé et dessiné, les plans qui l'accompagnent, sur ses Mémoires par le sieur Hanicle Ingenieur ordinaire du Roy. MS. in Library of Congress, Washington, D. C. [1696].

Contains a good though short account of the culture of the Alacaluf of the Strait (pp. 3–7) and some local and tribal names (pp. 18–19), but is chiefly important for the vocabulary of 225 words and phrases gathered by La Guilbaudiere from the natives (pp. 8–13). Sometime between 1688 and the date of de Gennes' voyage, 1696 (Marcel, *a*), La Guilbaudiere was shipwrecked in the Canal de Joucy-oucq or Yeoucyoucq, which, to judge from Jouan's description and from Hanicle's map, was just off the Strait of Magellan south of the Port Gallant district—perhaps Barbara Channel. The crew spent 11 months on the mainland near Port Gallant making a smaller boat from the wreckage of their 200-ton vessel (pp. 2, 23). It was during this time, as La Guilbaudiere states (p. 3), that he was enabled to learn something of the native culture and to gather his vocabulary. He had considerable contact with the Indians and (p. 24) took at least one long voyage of five weeks with them by canoe.

The vocabulary is unquestionably Alacalufan. General Mitre's criticism (I, 159), "este documento es una mera curiosidad lingüística," is certainly far too severe. A comparison with other Alacalufan vocabularies shows Jouan's to be as correct as most and more correct than many of the lists gathered by more trained men; but like most of the other extant lists his has a corroborative rather than an independent value.

Much of La Guilbaudiere's cultural material was published by Dr. Marcel (*a* and *c*), as was also the vocabulary (*b*). Some of the words in Marcel, *b*, differ slightly from Jouan's manuscript list; Jouan, too, wrote many of his *c's* and *e's*, *l's* and *t's*, and *u's* and *n's* so much alike that it is not always possible to determine which he meant. Cf. Roussel, *a*, *b*.

Gunn, John

Recent exploration in Tierra del Fuego. (In *Scottish geogr. mag.*, Edinburgh, 1888, IV, 319–326.)

Contains (pp. 325–326) a succinct account of Ona culture, chiefly material. The anthropological and other data are derived from Popper, *a*.

Haberlandt, Michael

Völkerkunde (Sammlung Göschen), Leipzig, 1898; Engl. tr., London, 1900.

Contains (orig., pp. 125–126; tr., p. 101) a very short, unimportant paragraph on the Fuegians.

Hacke, William, *ed.*

A collection of original voyages, London, 1699; for reprint and Fr. and Germ. translations, see Dampier.

Contains the voyages of Sharp and Wood.

Haddon, Alfred Cort

(*a*) The study of man, New York-London, 1898.

Contains (pp. 55, 78) brief data on Fuegian cranial and nasal indices.

(*b*) The races of man and their distribution, London (1909).

Contains (pp. 100–102) brief notes on the three Fuegian tribes.

(*c*) The wanderings of peoples, Cambridge-New York, 1912.

Contains (pp. 77, 112–113) suggestions regarding the probable relationship and original habitat of the three Fuegian tribes.

Hahn, Philippe

(*a*) La mère et l'enfant chez les Fuégiens du sud (Yaghan). (In *Bull. Soc. d'anthr. de Paris*, 1883, 3d ser. VI, 804–807.)

An important article from the physiological as well as from the social and moral standpoints. Several Yahgan words given, one (p. 804) showing a slight difference as used in Ushuaia and the southern islands respectively.

(*b*) Mission du cap Horn: Rapport sommaire. (In *C. R. hebdom. Acad. des sciences*, Paris, séance of Dec. 31, 1883, XCVII, 1533–1537.)

Contains toward end a brief account of Yahgan culture.

(*c*) Les Fuégiens de l'Archipel. (In *Science et nature*, Paris, 1^er sem., 1884, I, 337–341.)

Quite like the preceding article. Brief mention of three Yahgan legends.

Dr. Hahn had splendid opportunities for first-hand study of the Yahgans during his year's

Hahn, Phillippe—Continued

service on the French Cape Horn Expedition as surgeon of the *Romanche.* He spent this time cruising around with Capt. Martial. By assiduous study he learned to understand the Yahgan tongue fairly well. In his professional capacity, moreover, he was in a position to gather some invaluable information, especially in the field covered by the first of the above three articles. The greater part of the material he gathered has been incorporated in volumes I and VII of the Mission du cap Horn.

Hakluyt, Richard, *ed.*

The principal navigations, voyages, traffiques and discoveries of the English nation, 2d enlarged ed., 3 vols, London, 1598–1600; ed. by Edmund Goldsmid, 16 vols., Edinburgh, 1884–1890; ed. Hakluyt society, 12 vols., Glasgow, 1903–1905.

Contains (2d ed., III, 730–742, 803–825, 839–840, 842–852; Goldsmid ed., XV–XVI; Hakluyt soc. ed., XI) Drake's Famous voyage, Pretty's and Jane's accounts of Cavendish's 1586 and 1591 voyages, and Magoths' narrative of Chidley's voyage.

Hakluyt society publications, London, 1847–

The society has published reprints or English translations of the following voyages and other works: Acosta, 1880, vols. LX–LXI; Fletcher, 1854, vol. XVI; Hawkins, 1847, vol. I, and 1878, vol. LVII; Maximilianus Transylvanus, 1874, vol. LII; Nodals, 1911, 2d ser., vol. XXVIII; Sarmiento and Hernandez, 1895, vol. XCI; van Speilbergen, 1906, 2d ser., vol. XVIII. Cf. also Hakluyt, and Purchas, *b*.

Hale, Horatio

Ethnography of Antarctic America. (In *Science*, New York, July 31, 1885, VI, no. 130, pp. 92–94.)

A summary of the Lucy-Fossarieu monograph (q. v.).

Hamilton, James

A memoir of Richard Williams, surgeon: Catechist to the Patagonian missionary society in Terra del Fuego, New York, 1854.

Contains (pp. 109–120) a description of the Fuegians, based chiefly on Byron, de Córdoba, Fitz-Roy and Prichard; but is of greater interest for the frequent references passim to the character of the Yahgans from the journal of Dr. Williams.

Hamy, Jules Théodore Ernest

(*a*) *See* de Quatrefages.

(*b*) Étude sur les collections américaines réunies à Gênes à l'occasion du IVe centenaire de la découverte de l'Amérique. (In *Journ. Soc. des Américanistes de Paris*, 1895–96, I, 1–31; separate repr., Paris, 1896; also in author's Decades americanae: 3e & 4e Décades, Paris [1898], pp. 153–178.)

Contains (on last 2 pages of article) a few unimportant notes from observation of the three Alacaluf and one Ona under Father Beauvoir's care at the Genoa exposition in 1892.

(*c*) Les races malaiques et américaines. (In *Anthropologie*, Paris, 1896, VII, 129–146; [Les races américaines] in author's Decades americanae, 5e & 6e Déçades, Paris [1902], pp. 1–10.)

Dr. Hamy asserts his belief (pp. 142 and 5–6, respectively) in the racial kinship between the modern Fuegians and the ancient Lagoa Santa race.

Hanaford, *Mrs.* **Phebe Anne**

The captive boy in Tierra del Fuego [Thomas Edward Coffin], New York, 1867.

Contains passim some fairly good material on Fuegian culture. See especially pp. 210–211 describing what may have been religious ceremonies. The boy was shipwrecked with his father among the natives, apparently Alacaluf, and after his father's murder by them spent about three months, Feb.–May, 1855, in their midst. The boy seems to have been a good observer. Mrs. Hanaford took special pains to gather from him on his return all cultural data and weave them into her narrative.

Hariot, P.

Un mission scientifique dans les régions magellaniques, 1886. (Reference from Anrique, p. 397.)

Harris, John

Navigantium atque itinerantium bibliotheca: or, a compleat collection of voyages and travels, 2 vols., London, 1705; rev. ed., ibid., 1744–1748; same, 1764.

Contains the following voyages: 1705 ed., vol. I, book I: ch. 4, Drake's Famous voyage; ch. 5, Pretty's account of Cavendish's 1586 voyage; ch. 6, van Noort's and de Weert's; ch. 7, van Speilbergen's; book 5: ch. 4, Knivet's account of Cavendish's 1591 voyage; ch. 10, Hawkins'; the preceding are abstracts, which, however, give the Fuegian anthropological data quite or nearly in full; vol. II, book 4: ch. 1, Narbrough's; ch. 6, Sharp's; these two in full.

Hartgers, Joost, *ed.*

Oost-Indische voyagien, door dien begin en voortgangh van de Vereen-

Hartgers, Joost, *ed.*—Continued

ighde Nederlandtsche geoctroyeerde Oost-Indische compagnie, Amsterdam, 1648.

Contains the voyages of de Weert, van Noort, van Speilbergen, and L'Hermite, reprinted from Commelin.

Hatcher, John Bell

(*a*) Patagonia. (In *Nat. geogr. mag.* Washington, Nov., 1897, viii, no. 11, pp. 305–319.)

On pp. 305–307 a short, unimportant account of the culture of the Canoe Indians.

(*b*) The Indian tribes of soutnern Patagonia, Tierra del Fuego, and the adjoining islands. (Ibid., Jan., 1901, xii, no. 1, pp. 12–22.)]

Unimportant for Fuegian culture.

Hatin, Louis Eugène

Histoire pittoresque des voyages autour du monde, 2 vols., Paris-Limoges, 1847.

Contains (i, 97–101) the description of the Pecherais (Alacaluf) from Bougainville.

Hawkesworth, John, *ed.*

An account of the voyages . . . performed by Commodore Byron, Captain Carteret, Captain Wallis and Captain Cook . . . drawn up from the journals which were kept by the several commanders and from the papers of Joseph Banks, Esq., 3 vols., London, 1773; 2d ed., 1773; Kerr, vols. xii–xiii; repr. of vols. ii–iii, 2 vols., New York, 1774; Fr. tr., 4 vols., Paris, 1774; Montémont, vols. ii–iii, v–vii; Dutch tr. of Cook's voyage, by J. D. Pasteur, Leyden, etc., 1797–1809, vols. i–iii; abridgment of Byron's and Cook's voyages, in Bancarel, vols. vi, viii; abstr. in Henry, vol. iii; abstracts of Wallis' in Bancarel, vol. iv, of Cook's in Pinkerton, vol. xi, and in Fréville, vol. i.

For comments see Byron, *b*, Wallis, Cook, *a*, Banks.

Hawkins, Richard

The observations of . . . in his voiage into the South Sea, A. D. 1593, London, 1622; ed. by C. R. D. Bethune in Hakluyt soc. publications, vol. i, London, 1847; ed. by Clements R. Markham, ibid., vol. lvii, 1878; abridged in Purchas' Pilgrimes, iv, bk. 7, ch. 5; abstr. in de Brosses, i, 235–249, Harris, i, and Laet, bk. xii (xiii of Fr. and Lat. tr.).

Contains very meager and unimportant notes on natives, seemingly Alacaluf, met at Blanche's and English Bays in 1594.

Hellwald, Friedrich Anton Heller von

Naturgeschichte des Menschen, 2 vols., Stuttgart, 1882–1885.

Contains (i, 463–474) a lengthy description of the Fuegians. The account would need considerable revision in the light of more recent researches.

Hennig, C.

Das Rassenbecken. (In *Arch. f. Anthr.*, Braunschweig, 1886, xvi, 161–228.)

Contains passim (see pp. 213–214 and 168, no. 73) some notes on the Fuegian pelvis.

Henry, David, *ed.*

An historical account of all the voyages round the world performed by English navigators, 4 vols., London, 1773–74.

Contains accounts of the following voyages: Drake's (World encompassed), Cavendish's (by Pretty and Jane), vol. i; Clipperton's, Anson's (chiefly from Thomas), vol. ii; Byron's, Wallis's, Cook's first (all three from Hawkesworth), vol. iii; Bougainville's, vol. iv. The Cavendish voyages are given in full; the others are abstracts, which, however, include most of the Fuegian anthropological data.

In 1775 Henry published a fifth volume, containing Cook's second voyage.

Herbertson, Andrew John, *and Mrs.* **Fanny Louisa Dorothea**

Man and his work: An introduction to human geography, 2d ed., London, 1904.

Contains references passim to Fuegian culture. The attribution of the raft (p. 56) to the Fuegians is an inaccuracy.

Herculais, J. Künckel d'

Les chiens des Fuégiens. (In *Science et nature*, Paris, 1er sem., 1884, i, 137–140.)

A study of two Yahgan dogs brought back by Dr. Hyades. Includes extensive quotations from Drs. Hyades and Hahn on the appearance and habits of the Yahgans' dogs.

Hernandez, Tomé

Declaracion que de órden del Virréi del Perú D. Francisco de Borja, Príncipe de Esquilache, hizo, ante escribano, Tomé Hernandez, de lo sucedido en las dos poblaciones fundadas en el

Hernandez, Tomé—Continued

estrecho de Magallánes por Pedro Sarmiento de Gambóa. (In Iriarte's ed. of Sarmiento's Viage, Madrid, 1768; Engl. tr., Markham, Hakl. soc., 1895, XCI, 352–375.)

Contains passim a few unimportant notes on the Alacaluf and Onas(?) (pp. xxv, xxix–xxx).

Herrera y Tordesillas, Antonio de

Historia general de los hechos de los castellanos en las islas i tierra firme del mar oceano, 2d (or, according to some, 3d) ed., 5 vols., Madrid, 1726–27 (1st ed., 1601–1615); Engl. tr. of first three decades, London, 1725–26; Fr. tr. ditto, 3 vols., Paris, 1660–1671.

Contains meager data on the graves found by Magellan's expedition, and on the natives met by the Loaysa expedition (dec. 2, bk. 9, ch. 14, and dec. 3, bk. 9, ch. 4, respectively).

Herrera, Pedro Nolasco

La raza Ona i su civilización: Conferencia dada en la Sociedad Empleados de Comercio el dia 28 de marzo de 1897, Santiago de Chile, 1897, 42 pp. (Reference from Anrique, p. 422.)

Hervás y Panduro, Lorenzo

(*a*) Catalogo delle lingue conosciute e notizia della loro affinità e diversità, Cesena, 1784.

Quotes in extenso (p. 16) an important letter dated Oct. 31, 1783, in which Father José García Martí (q. v.) sketches the tribal and linguistic divisions of the canoe-using Indians from Chiloé to the Strait of Magellan. This letter has frequently been used by later writers as a basis for the classification of these natives.

(*b*) Catálogo de las lenguas de las naciones conocidas, 6 vols., Madrid, 1800–1805.

Contains the same letter in Spanish (I, 125–126) and a few unimportant data on Fuegian linguistics.

Hervé, Henri Georges

See Hovelacque.

Hestermann, Ferdinand

(*a*) Zur Transkriptionfrage des Yagan. (In *Journ. Soc. des Américanistes de Paris*, 1913, n. s. x, fasc. 1, pp. 27–41.)

An announcement by Father Hestermann that he is preparing for proximate publication the larger Yahgan dictionary compiled by the Rev. Thomas Bridges. In transcribing it he will use the system advocated by his confrère, Father Wilhelm Schmidt, in *Anthropos*, 1907, II, 282–329, 508–587, 822–897, 1058–1105.

(*b*) *See* W. Schmidt, *b*.

Hobhouse, Leonard Trelawney

Morals in evolution, 2 vols., 2d rev. ed., London, 1908.

Contains (I, 45–47) a brief account of Yahgan moral culture, based on Hyades.

Holdich, Thomas Hungerford

The countries of the king's award, London, 1904.

Contains (pp. 144–145, 152–153, 159–160) a few unimportant notes on the modern Fuegians, based partly on personal observation.

Hollard, Henry

De l'homme et des races humaines, Paris, 1853.

Contains (pp. 202–203) a short, unimportant account of the Alacaluf.

Holliday, Frederick William Mackey

Letters of travel 1882–[1893], 7 (8) vols., Baltimore, 1897.

Contains (vol. v, West Indies and South America, pp. 278–280) unimportant notes on a canoe-load of Alacaluf met casually in 1888.

Holmberg, Eduardo Alejandro, (*hijo*)

(*a*) Viaje al interior de Tierra del Fuego. (Reprint from *Anales del Ministerio de Agricultura, sección de Inmigración, Propaganda y Geografía, República Argentina*, vol. I, no. 1, Buenos Aires, 1906, 95 pp.)

Contains (pp. 51–60) an interesting and extensive account of Ona culture. During a four months' trip in company with Dr. Lehmann-Nitsche, the writer often saw (p. 58) the Onas, and was, moreover, in touch with both Mr. Lucas Bridges and the Salesians. His description, however, differs in many details from other accounts based on the same sources. On pp. 51–52 are a few data on the Haush subtribe. Seven photographs of Ona types. Ethnological maps, and reprint of Capt. Bove's map.

(*b*) El último representante de una raza. (In *Apuntes de hist. nat.*, 1909, vol. I, no. 5.) (Reference from Dabbene.)

According to Dr. Dabbene (*b*, p. 269) this article contains data on the Haush tribe, furnished by Mr. Lucas Bridges.

Hovelacque, Abel, *and* **Hervé, Henri Georges**

Précis d'anthropologie, Paris, 1887.

Contains (pp. 526–527) a few unimportant notes on Fuegian culture and somatology, based on d'Orbigny, Garson, Manouvrier, and Th. Bridges.

Hoyos Sáinz, Luis de

(*a*) Lecciones de antropología: Vol. III, Etnografía: Clasificaciones, prehistoria y razas americanas, 2d ed., Madrid, 1900.

Contains (pp. 278–281, 356) a brief account of the Fuegians. Not important.

(*b*) Crânes fuégiens et araucans du musée anthropologique de Madrid. (In *Journ. Soc. des Américanistes de Paris*, 1913, n. s. X, fasc. I, pp. 181–194.)

Contains the description and measurements of an adult Fuegian ♂ skull, believed by the writer to be of an Ona. Three photographs of same skull.

Hrdlička, Aleš

(*a*) Measurements of three Fuegian skulls, a ♂ Yahgan, a ♂ Onan, and a ♀ Onan. (Published by Dr. Dabbene [*b*, p. 283] with three plates of photographs of same.)

(*b*) Early man in South America, Bulletin 52, Bureau Amer. ethn., Washington, 1912.

On p. 179 Dr. Hrdlička expresses conviction of the kinship of the modern Fuegians to the ancient Lagoa Santa race.

Hulsius, Levinus, *ed.*

[Collection of voyages], 24 parts, Franckfurt am Mayn, etc., 1599–1649.

Contains the voyages of van Speilbergen, pt. 17, 1620, and of L'Hermite, pt. 22, 1630.

Hultkrantz, J. Vilh.

(*a*) Några bidrag till Sydamerikas fysiska antropologi. (In *Ymer*, Stockholm, 1898, XVIII, 31–48.)

An important contribution to Fuegian and Chonoan somatology. Dr. Hultkrantz gives the description and measurements of the following skulls: 3 ♂ Onan, 2 ♂ Yahgan, 1 ♀ Alacalufan (probably), and 1 ♀ Chonoan (probably). In the following paper the first five skulls are studied more fully, but the last two are omitted.

(*b*) Zur Osteologie der Ona- und Yahgan-Indianer des Feuerlandes. (In Wissenschaftliche Ergebnisse der schwedischen Expedition nach den Magellansländern 1895–1897 unter Leitung von Dr. Otto Nordenskjöld, Bd. I, Geologie, Geographie u. Anthropologie, Heft 2, Nr. 5, Stockholm, 1900 ca, pp. 109–173.)

An important contribution to Yahgan and especially Ona somatology. The paper contains a few notes (pp. 126–127) on the culture of the Onas from Dr. Nordenskjöld's Från Eldslandet, but is chiefly of value for the description and measurements of the following material: 5 nearly complete adult ♂ skeletons—3 Onan and 2 Yahgan—and 1 Yahgan child's skull brought back by the Swedish expedition of 1895–1897; 1 ♂ Yahgan skull brought back by Dr. Erland Nordenskiöld's expedition of 1898–99; 2 complete skeletons (one ♂, the other ♀) and 1 ♂ skull, all Onan, now at Paris. Dr. Hultkrantz found the cephalic indices of 5 ♂ Ona skulls to be 72.8, 73.2, 74.3, 76, 76.8, and the 1 ♀ 76.1 (pp. 131, 167)—an average lower than the Yahgan-Alacalufan. The paper concludes with an interesting and important discussion of the somatological relations of the Onas to the Yahgans and Alacaluf, pp. 162–163, and to the Patagonians, pp. 163–165.

The following reviews of the above study contain summaries of the results: *Ymer*, 1901, XXI, 206–207; L. Laloy, in *Anthropologie*, 1902, XIII, 402–404; Félix F. Outes, in *Historia*, Buenos Aires, 1903, I, 492–493.

Huxley, Thomas Henry

On the form of the cranium among the Patagonians and Fuegians. (In *Jour. of anat. and physiol.*, Cambridge-London, 1868, II, 2d ser. I, 253–271.)

Contains (pp. 266–268) a description of 2 skulls, one Alacalufan, previously described by Dr. Owen, the other either Alacalufan or possibly Onan, from Philip Bay, sent to Prof. Huxley by Dr. Cunningham. Woodcuts.

A summary of the above article may be found in *Arch. f. Anthr.*, Braunschweig, 1868–69, III, 374.

Hyades, Paul Daniel Jules

(*a*) [A short letter]. (In *C. R. Soc. de géogr.*, Paris, 1883, pp. 374–377.)

Unimportant short notes on the Yahgans of Orange Bay, followed by an unimportant discussion on Fuegian language taken part in by MM. Bouquet de la Grye, Delisle, and d'Abbadie.

(*b*) Mission du cap Horn: Rapport sommaire. (In *C. R. hebdom. Acad. des sciences*, Paris, séance of Dec. 10, 1883, XCVII, 1340–1347.)

A summary of the results of the geological, floral, and faunal researches of the expedition, followed by a good but brief account of Yahgan culture.

(*c*) Les Fuégiens et la mission française du cap Horn. (In *La Nature*, Paris, 1er sem., 1884, XII, 142.)

An abbreviated review of the preceding article.

Hyades, Paul Daniel Jules—Continued

(*d*) Les Fuégiens à la baie Orange. (In *Science et nature*, Paris, 1er sem., 1884, I, 305–309.)

A summary of Yahgan culture, quite similar to the Rapport sommaire above. Woodcuts of Yahgan canoe and wigwam, and of 5 casts of natives.

(*e*) *and* **Galippe, V.**

Observations sur le système dentaire des Fuégiens. (In *C. R. hebdom. des séances et mémoires Soc. de biol.*, Paris, 1884, XXXVI, 8th ser., I, 69–80; *Journ. des connaissances médicales prat. et de pharmacol.*, Paris, 1884, année LI, 3d ser., pp. 207–208, 215–216, 222–224.)

Description and measurements of material brought back by Dr. Hyades.

(*f*) Notes hygiéniques et médicales sur les Fuégiens de l'archipel du cap Horn. (In *Revue d'hygiène et de police sanitaire*, Paris, 1884, VI, 550–590.)

This important paper was read before the Société de médecine publique et d'hygiène professionnelle at the meeting held June 11, 1884, and is a "résumé des principales observations faites au point de vue médical sur les Fuégiens qui vivent dans les parages immédiats du cap Horn," touching, it may be added, on nearly every phase of Yahgan culture.

(*g*) Une année au cap Horn. (In *Tour du monde*, Paris, 1er sem., 1885, XLIX, 385–416; Germ. tr. in *Globus*, Braunschweig, 1886, XLIX, 1–7, 17–22, 33–40; Dutch tr. in *De aarde en haar volken*, Haarlem, 1886, XXII, pp. 89–104; Span. tr. by R. Serrano M. in *An. hidr. mar. Chile*, Santiago, 1886, XI, 479–521.)

Contains an extensive and important account of all phases of Yahgan culture, but very little on somatology or language. 23 woodcuts and 1 map.

(*h*) La chasse et la pêche chez les Fuégiens de l'archipel du cap Horn. (In *Revue d'ethnographie*, Paris, 1885, IV, 514–553.)

A comprehensive treatment of this phase of Fuegian culture, giving also many data on kindred phases. Many Yahgan words passim. 26 woodcuts.

(*i*) Observations sur les Fuégiens. (In *Bull. Soc. d'anthr. de Paris*, 1883, 3d ser. VI, 617–621.)

Short extracts from two letters by Dr. Hyades. Not important.

Hyades, Paul Daniel Jules—Continued

(*j*) Contribution à l'ethnographie fuégienne. (Ibid., 1884, 3d ser. VII, 147–168.)

Of importance for the extensive notes (pp. 152–165) on Yahgan grammar, especially the conjugations. Some Yahgan words passim. A few notes on culture.

This article is followed by Dr. Hyades' translation of Mr. Thos. Bridges' Manners and customs of the Firelanders (pp. 168–184) and by an unimportant discussion taken part in by MM. de Sémallé, de Quatrefages, Foley, and Letourneau (pp. 184–185).

(*k*) Sur les Fuégiens. (Ibid., pp. 616–620.)

(*l*) Sur les Fuégiens. (Ibid., pp. 716–725.)

These last two articles are of interest chiefly for the following: an exact census of the Yahgans taken by Mr. Thos. Bridges in June, 1884, p. 717; "Les Ona de l'Oest peuvent à peine comprendre les Ona de l'Est," quoted from a letter by Mr. Bridges, p. 718; d'Arquistade's narrative, pp. 723–725.

(*m*) Sur l'état actuel des Fuégiens de l'archipel du cap Horn. (Ibid., 1885, 3d ser. VIII, 200–215.)

Unimportant cultural notes, followed by a short discussion by MM. Foley, Hovelacque, Hervé, Topinard, Deniker.

(*n*) La rougeole chez les Fuégiens. (Ibid., pp. 462–463.)

Some comments upon a communication from the Rev. Mr. Bridges.

(*o*) Les épidémies chez les Fuégiens. (Ibid., 1886, 3d ser. IX, 202–205.)

Extracts from a letter from Mr. Thos. Bridges on the ravages of an epidemic among the Yahgans.

(*p*) Ethnographie des Fuégiens. (Ibid., 1887, 3d ser. X, 327–340.)

Multum in parvo. An important summary of the mental, social, moral and religious culture of the Yahgans, given in the form of concise answers to a "questionnaire de sociologie et d'ethnographie." A few Yahgan words passim. Discussion by MM. Hyades, Letourneau, Piétrement, Hervé, Ploix (pp. 340–345).

Cf. also notes on Fuegian cannibalism by Hyades (pp. 502–504), Bordier (pp. 66, 505–506), and de Nadaillac (pp. 29–30), ibid., 1888, 3d ser. XI.

(*q*) *and* **Deniker, Joseph.**

Mission scientifique du cap Horn, vol. VII. Anthropologie, ethnographie, Paris, 1891.

The most important extant study of Yahgan anthropology. Where it is accessible, Dr. Hyades'

Hyades, Paul Daniel Jules—Continued

other writings (except, for a few minor points, the preceding article, *p*), and, for that matter, almost everything else that had been published previously by the Rev. Mr. Bridges, the members of the Bove expedition, and earlier writers on the Yahgans, may be safely neglected. Moreover, since the publication of this classic little of importance has been added to our knowledge of Yahgan culture, although there have been advances in the fields of somatology and particularly of language. It may be added that Dr. Hyades' writings are sources for the anthropology of the Yahgans almost exclusively. As he carefully emphasizes, he had no personal experience with the Onas, and very little with the Alacaluf.

Contents: Introductory remarks, pp. 1–23; anatomy: osteology, description, and measurements of the following material, all Yahgan, brought back by the expedition: 4 complete skeletons (of 1 man, 1 woman, and 2 infants); 3 additional skulls (2 ♂, 1 ♀); 2 incomplete skeletons, and many isolated bones; restudy of some and review of nearly all the Fuegian osteological material then in Europe, pp. 25–60; myology, by Dr. L. Testut, pp. 60–104; morphology, observations, and measurements upon 85 living Yahgans (26 men, 23 women, 20 boys, 16 girls), and 2 Alacaluf women, pp. 105–161; general conclusions upon the physical type and affinities of the Fuegians, pp. 161–166; physiology, pp. 167–221; pathology, pp. 222–236; psychology, pp. 237–259; voice, pronunciation, etc., pp. 214–219; Yahgan words for colors, p. 208; French-Yahgan-Tekeenika (Fitz-Roy) vocabulary, pp. 265–270; French-Alacaluf-Alikhoolip (Fitz-Roy) vocabulary, pp. 272-277; Alacaluf vocabulary of 46 words, furnished by Dr. Fenton, p. 278; 13 additional Alacaluf words from a native boy, Cyrille, p. 279; an extensive and very important Yahgan vocabulary, pp. 280–321; Yahgan grammar, chiefly declensions and conjugations, pp. 321–332; Yahgan phrases and sentences, pp. 332–334; Yahgan culture, pp. 338–391; a great deal of cultural material scattered through the Yahgan vocabulary, pp. 280–321; bibliography in chronological order, pp. 393–402; ethnological map; 21 heliogravures, chiefly illustrative of physical types; 9 plates illustrating osteology; 5 double plates illustrating material culture.

During Dr. Hyades' sojourn at Orange Bay, in the heart of the Yahgan territory, from Sept., 1882, to Sept., 1883, 120 to 130 Yahgans made longer or shorter stays there. He lived on friendly terms with them, and succeeded in gaining and holding their confidence. While he did not learn to speak their language, he made a diligent study of it, and besides had the advantage, part of the time at least, of native interpreters. His somatological data are almost entirely the result of personal study, though in collaboration with Drs. Deniker and Testut especially, but for the cultural and linguistic he drew largely upon the intimate knowledge of the Rev. Mr. Bridges and the other English missionaries, with whom he was in close touch.

Hyades, Paul Daniel Jules—Continued

Dr. Hyades was admirably fitted both by temperament and by training for the work he undertook, and it is needless to add carried on his researches in a thoroughly scientific manner.

Of his Yahgan linguistic material he writes (p. 263): "Nous avons multiplié les interrogations auprès des indigènes de divers groupes, dans les circonstances les plus variées, de manière à bien établir le sens exact des mots En outre nous avons pris, sur tous ces termes, l'avis de M. Bridges . . ." He also received much assistance from Dr. Hahn, the surgeon of the *Romanche*, who made considerable progress in acquiring a speaking knowledge of Yahgan. Dr. Hyades' Alacalufan vocabularies fall far short of his Yahgan one in value, as he himself recognized and expressly stated. Not only was less time and care given to them, but also he received no aid at all from the English missionaries (p. 13). I have discussed the Alacalufan vocabularies published by Dr. Hyades at length in the Introduction to the present bibliography. Cf. supra, pp. 11, 23–24, 25.

The other six volumes of the Mission du cap Horn give many data bearing on Yahgan environment. These volumes are as follows: I, History of voyage, L. F. Martial (q. v.); II, Meteorology, J. Lephay; III, Terrestrial magnetism, F. O. Le Cannellier: Chemical constitution of atmosphere, Müntz and Aubin; IV, Geology, P. Hyades; V, Botany, Hariot and others; VI, Zoology, Milne-Edwards and others.

Ibar Sierra, Enrique

Relacion de los estudios hechos en el Estrecho de Magallanes i la Patagonia austral durante los últimos meses de 1877. (Reprint from *An. hidr. mar. Chile*, Santiago, 1879, vol. V, appendix, pp. 7–60.)

Contains many notes on the geology, flora, fauna, etc., of the Strait of Magellan, but only meager unimportant remarks passim on the Fuegians.

Iriarte

[Alacaluf vocabulary]. (In Whiteside, q. v.)

Jacquinot, Honoré

See Dumont d'Urville.

Jakob, Anton

Der Mensch, die Krone der irdischen Schöpfung, Freiburg im Breisgau and St. Louis, 1890.

Contains (pp. 49–54) a review of the evidence in defence of Fuegian intelligence and ethical standards, from Darwin, Ratzel, Bridges, Böhr, Peschel; some minor inaccuracies.

Jakob, Christfried

Contribution à l'étude de la morphologie des cerveaux des Indiens. (In

Jakob, Christfried—Continued

Rev. Museo de La Plata, La Plata, 1905, xii, 59–72.)

Contains (pp. 65–71) a study of the brains of the same Yahğan man and Alacalufan woman whose cadavers and osteological remains were studied by Dr. ten Kate (q. v.). Plates i–ii, vii.

Jane, John

The last voyage of the worshipfull M. Thomas Candish esquire, intended for the South sea, the Philippinas, and the coast of China. (In Hakluyt, 2d ed., iii, 842–852; Henry, vol. i.)

Contains only an unimportant sentence or two on some natives, probably Alacaluf, met in the Strait in 1592 by the Cavendish expedition of which Jane was a member.

Jansz Potgieter, Barent

Wijdtloopigh verhael van 'tgene de vijf schepen (die int jaer 1598. tot Rotterdam toegherust werden / om door de Straet Magellana haren handel te dryven) wedervaren is / tot den 7. September 1599. toe / op welcken dagh Capiteijn Sebald de Weert, met twee schepen / door onweder vande vlote versteken werdt, Amsterdam, 1600; abridged in Commelin, vol. i, and Hartgers; Fr. tr., de Renneville; Engl. tr., London, 1703; Lat. and Germ. tr., de Bry, pt. ix; de Brosses, vol. i, pp. 274–294; abstr. in Kerr, vol. x, in Harris, vol. i, bk. 1, ch. 6, in Prévost, vol. xv, in Laet, bk. 12, Lat. and Fr. ed., bk. 13.

Contains numerous notes on the natives, probably Alacaluf, met casually in different parts of the Strait of Magellan in 1599–1600. Barent Jansz, who was surgeon of the fleet, spent nine months in the Strait and had frequent contact with the natives. Two very interesting cuts illustrating physical type and material culture.

Jenkins, John Stilwell

Recent exploring expeditions to the Pacific, and the South Seas, under the American, English, and French governments, London, 1853.

Contains (pp. 49–55) a description of the natives of Good Success Bay, Orange Harbor, and Nassau Bay met by Admiral Wilkes' party, with the addition of some further details from Drake and Darwin.

The same passage is found in the author's Voyage of the United States exploring squadron commanded by Capt. Charles Wilkes . . . Detroit, 1853, pp. 70–75.

Journal of a voyage round the world in His Majesty's ship *Endeavour*, in the years 1768, 1769, 1770 and 1771, Dublin, 1772.

Contains (pp. 42–45) an account of the natives met at Good Success Bay by Capt. Cook's first expedition. Authorship of Journal uncertain.

Journal of the Resolution's voyage, in 1772, 1773, 1774 and 1775 . . . London, 1775.

An apocryphal account of Capt. Cook's second voyage.

Joyce, Thomas Athol

South American archæology, London, 1912.

The author touches only lightly (passim, especially pp. 4, 218, 239, 241–242) on the probable relationship of the Alacaluf and Onas to other South American peoples.

Juillerat, Paul

Les Fuégiens du Jardin d'Acclimatation. (In *La Nature*, Paris, 2e sem., 1881, ix, 295–298.)

An unimportant account of the Fuegians, written apropos of the exhibition of the Hagenbeck group of Alacaluf at Paris, and based chiefly on Fitz-Roy, Darwin, d'Orbigny. One woodcut.

Juliet, Cárlos

Informe del ayudante de la comisión exploradora de Chiloé i Llanquihue. (In *An. hidr. mar. Chile*, Santiago, 1875, i, 263–338.)

Contains a lengthy description (pp. 316ff.) of the aborigines of the islands from Chiloé to the Strait, based more on good written sources than on personal observation. The writer describes passim some points of Chonoan culture, but does not always distinguish clearly enough between the Chilotans and the nomadic Chonos.

Karsch-Haack, F.

Das gleichgeschlectliche Leben der Naturvölker, München, 1911.

The author bases his statement (p. 446) on a passage in Arndt's Biologische Studien (ii, p. 247), but adds that the latter gives no authority for the charge. The only first-hand reference to the subject I have met in Fuegian literature is Dr. Hyades': "Les Fuégiens parlent en plaisantant de la pédérastie: *tçatɜmana*, mais ne la pratiquent jamais" (*q*, p. 294; cf. also *p*, p. 334; Mondière, 114).

Kate, Herman ten

Matériaux pour servir à l'anthropologie des Indiens de l'Argentine. (In *Rev. Museo de La Plata*, 1905, xii, 31–57.)

Kate, Herman ten—Continued

Contains some remarks on the mentality and character of a Yahgan man 22 to 23 years old and an Alacaluf woman of very advanced age (pp. 38–42) and observations, descriptive notes and measurements upon the cadavers and osteological remains of the same two natives (pp. 43–52) 2 plates. Cf. Chr. Jakob.

Keane, Augustus Henry

(*a*) Fuegian ethnology. (In *Nature*, London-New York, Aug. 9, 1883, xxviii, 344–345.)

A summary of Capt. Bove's cultural and somatological data, taken from Dr. Cora's articles in *Cosmos*, Turin, 1882–83, vol. vii. Some inaccuracies.

(*b*) Man, past and present, repr. of 1st ed., Cambridge, 1900.

Contains some remarks (pp. 430–431) on the ethnic relationship of the three Fuegian tribes, and (pp. 431–432) on Yahgan family ethics. Dr. Keane calls attention to the disparate estimates given by Capt. Bove and Dr. Hyades of Yahgan morality, particularly domestic morality, and suggests that the seeming differences are partly due to the missionaries, beyond whose sphere of influence "the darker pictures presented by the early observers and later by Bove, Lovisato, and others, still hold good." But in point of fact, Capt. Bove and his party made a great part of their observations at Ushuaia, the mission station itself. It looks very much as if Capt. Bove mistook the Yahgan's studied concealment of the affective emotions before strangers for utter selfishness. Again, while both Capt. Bove's and Dr. Hyades' "good faith is above suspicion," the latter was an appreciably better equipped and more cautious observer, and had many times greater opportunities for observation. Finally, Dr. Hyades' account agrees much more closely with that of the other few important first-hand authorities on the subject (cf. Subject Bibliography, under Domestic Culture). As for the earlier observers, the best of them, Capt. Fitz-Roy, had very limited experience with the Yahgans and expressly disclaims (*a*, p. 182) the right to speak with certainty on less obvious phases of culture like that of family ethics.

(*c*) Central and South America, rev. ed., 2 vols., London, 1901. (Stanford's Compendium.)

Contains (i, 307–310, and passim) a brief account of the three Fuegian tribes. Good maps.

(*d*) The world's peoples, New York, 1908.

Contains (pp. 301–305) practically same account, chiefly of Yahgans, as in Man, past and present; well written but some inaccuracies, viz., "four wives common" (p. 303), average Yahgan stature 4 feet 6 inches (p. 304). Four photographs of Yahgan and Ona types.

Kerr, Robert, *ed.*

A general history and collection of voyages and travels, 18 vols., Edinburgh, 1811–1816; ibid., 1824.

Contains the following voyages: Byron's, Wallis', vol. xii; Cook's first, vol. xii–xiii (all three from Hawkesworth); Anson's (by Walter), vol. xi; Cook's second, vols. xiv–xv; Byron's Loss of Wager, Bulkeley and Cummins', vol. xvii. In vol. x are given abstracts of the voyages of Drake (from Pretty), Cavendish (from Pretty), Clipperton, de Weert, van Noort, van Speilbergen, and L'Hermite.

King, Phillip Parker

Proceedings of the first expedition, 1826–1830, London, 1839. (Vol. i of the Narrative of the surveying voyages of H. M. S. *Adventure* and *Beagle*.)

A very important source on the culture, chiefly of the Alacaluf, to a minor extent of the Yahgans and Onas. The anthropological material is scattered through the whole work. The greater part of this material is accessible in more systematic form in Capt. Fitz-Roy's Proceedings of the second expedition, but many valuable data are not to be found in the latter narrative. See especially in vol. i, pp. 23–24, 54–55, 74–77, 147–148, 166, 314–319, 415, 439–442. Four Alacalufan words and 1 Yahgan, pp. 53, 77, 320, 343, 444.

The present volume was edited by Admiral Fitz-Roy from Capt. King's journal, but includes also extensive extracts from the journals of Capt. Stokes, Lieut. Skyring, Admiral Fitz-Roy, and Mr. Murray. The first expedition spent altogether about two years in the Fuegian archipelago, intermittently from Jan., 1827, to June, 1830. During this time the members had very numerous though casual meetings with the natives, mostly Alacaluf.

Knivet, Anthony

The admirable adventures and strange fortunes of Master Anthonie Knivet, which went with Master Thomas Candish in his second voyage to the South Sea, 1591. (In Purchas, Pilgrimes, iv, bk. 6, ch. 7, pp. 1201–1242; Dutch tr. of parts, van der Aa, xx, 2d ed., vol. v; de Brosses, i, 228–233; abstr., Harris, vol. i, bk. 5, ch. 4.)

Contains a few unimportant notes on natives, probably Alacaluf, met at Port Famine in 1592 by the Cavendish expedition.

Knox, John

A complete collection of the most remarkable voyages, 8 vols., Baltimore, 1797.

Vol. vii gives the same abstract of Anson's voyage as is found in The World displayed, vol. vii.

Koch, Theodor

(*a*) Die Anthropophagie der südamerikanischen Indianer. (In *Intern. Arch. f. Ethnogr.*, Leiden, 1899, xii, 78–110.)

The section on Fuegia, pp. 95–96, is not important; Dr. Koch merely quotes, without comment or discussion, Mr. Darwin's affirmation and Dr. Hyades' denial of cannibalism among the Fuegians.

(*b*) Zum Animismus der südamerikanischen Indianer. (Ibid., 1900, Supplement zu Bd. xiii, 1–146.)

Contains (pp. 20, 31, 48, 86, 100, 128) notes on Fuegian culture, based on Ratzel, Peschel, Waitz, Th. Bridges, *e*, and Hyades, *g*. The statement on p. 48 from Peschel (Darwin) about killing the old in preference to the dogs in time of famine needs to be qualified, if not denied, in the light of more recent investigation.

Kohl, Johann Georg

Geschichte der Entdeckungsreisen und Schiffahrten zur Magellan's-Strasse und zu den ihr benachbarten Ländern und Meeren. (In *Zeitschr. Ges. f. Erdkunde*, Berlin, 1876, xi, 315–495; sep. repr., ibid., 1877.)

An excellent historical account, which, however, puts little stress on the anthropological data in the older voyages.

Kollman, Julius

Die Autocthonen Amerika's. (In *Zeitschr. f. Ethn.*, Berlin, 1883, xv, 1–47.)

Contains passim some unimportant data on Fuegian somatology from Böhr, Huxley.

Koppel, B.

See Stübel.

Krause, Fritz

Amerika und die Bogenkultur. (In *Mitt. Anthr. Ges.*, Wien, 1912, xlii, 3d ser. xii, Sitzungsber., Aug. 9, 1911, pp. [111]–115.)

A detailed and unfavorable criticism of Dr. Graebner's application of the Kulturkreis theory to America. Discussion of Fuegian culture on p. [111].

Krickeberg, Walter

Amerika. (In Georg Buschan's Illustrierte Völkerkunde, Stuttgart, 1910, pp. 29–164.)

Contains (pp. 95–100 passim, 140–143) a very good though brief summary of Fuegian anthropology. That, however, the Chonos "sprachlich zu den Araukanern gehören" (p. 140) rests on too frail evidence.

Krüger, Paul

Die patagonischen Anden zwischen dem 42. und 44. Grade südlicher Breite. (In *Peterm. Mitt.*, Gotha, 1909, Ergänzungsheft Nr. 164, pp. 1–242.)

Contains (pp. 27–28) some brief notes on the Chonos; several inaccuracies; unimportant.

Labarbinais Le Gentil

Nouveau voyage au tour du monde, 3 vols., Amsterdam, 1728; 3 vols., Paris, 1827; de Brosses, ii, pp. 219–225.)

Contains (i, letter I) a paragraph on the Fuegians, not, however, based on personal observation.

Labat, de

See Marcel, *a* and *c*.

Labbe, *Père*

Lettre du Pere Labbe, Missionnaire de la Compagnie de Jesus, au Pere Labbe de la mesme Compagnie. (In Lettres édif. et cur., recueil xv, 332–360; 1838–1843 ed., vol. ii, 91–95; de Brosses, ii, 434–435.)

Contains (pp. 356–358) a short but good account of a party of 30 Onas encountered at Good Success Bay, where Father Labbe remained from Nov. 1 to Nov. 5, 1711.

Lacroix, Frédéric

Patagonie, Terre-du-Feu et Iles Malouines. (In L'Univers: Histoire et description de tous les peuples, vol. xxv, Paris, 1840; ibid., 1876; Anrique mentions Span. tr., Barcelona, 1841.)

Contains (orig., pp. 56–62) a brief description of the Fuegians, based almost exclusively on King and Fitz-Roy. Reprints Admiral Fitz-Roy's Alacaluf-Yahgan vocabulary.

Ladrillero, Juan Fernandez [de]

Relación del viaje al estrecho de Magallanes. (Ed. with extensive notes by Ramon Guerrero Vergara in *An. hidr. mar. Chile*, Santiago, 1880, vi, 453–525. Map.)

One of the most important early sources on the culture of the Alacaluf (and Chonos?) met between the Guaianeco Islands and the western end of the Strait in 1557–58. Ladrillero gives excellent though short descriptions of the physical appearance and material culture of the natives encountered at the north end of Fallos Channel ("bahía de N. Señora del Valle") on pp. 464–465, at Conception Strait ("bahía S. Francisco") on p. 473, in the Última Speranza district on pp. 484–485, and near Desolation Island and the western end of the Strait on p. 490. The tall natives

Ladrillero, Juan Fernandez [de]—Contd.

met at the eastern end of the Strait (pp. 498–499) were probably Tehuelches, judging from their use of skin mantles with "la lana para adentro hacia el cuerpo."

After separating from Cortés Hojea (q. v.), Ladrillero explored a great deal of the territory around the western end of the Strait, followed the Strait to the Atlantic, and then returned by the same route.

Laet, Joannes de

Nieuvve wereldt, ofte Beschrijvinghe van West-Indien, 2d enl. ed., Leyden, 1630; Lat. tr., largely altered, ibid., 1633; Fr. tr., ditto, ibid., 1640.

Contains (bk. 12; Lat. and Fr. tr., bk. 13) abstracts of the voyages of Sarmiento (from Argensola), Magellan (from Herrera), Drake, Hawkins, Cavendish, de Cordes, de Weert, van Noort, the Nodals and L'Hermite. The anthropological data are given quite or almost in full, especially L'Hermite's.

Lafone Quevedo, Samuel Alexander

(*a*) "La raza americana" de Brinton: Estudio crítico. (In *Bol. Inst. geogr. argent.*, Buenos Aires, 1893, XIV, cuad. 9–12, pp. 500–528.)

Contains (pp. 525–526) a few suggestions regarding the probable linguistic relationship of the Fuegians.

(*b*) Etnología argentina, 1908. (In La Universidad nac. de La Plata en el IV° Congreso cient. [1° Panamericano], Buenos Aires, 1909, pp. 176–215; also in Trabajos IV° Congr. cient. [1° Pan-amer.] celebrado en Santiago de Chile, 25 dic. 1908–5 enero, 1909, vol. XIV, Ciencias nat., antrop. y etnol., tomo II, Santiago, 1911, pp. 187–215.)

Contains (pp. 209, 215; Trabajos, XIV, 188, 212) unimportant notes on Fuegian relationship.

La Grasserie, Raoul de

De la langue Tehuelche. (In *Verh. d. XIV. Intern. Amerikanisten-Kongr.*, Stuttgart, 1904, ibid., 1906, II, 611–647.)

On pp. 643–647 the author reviews the statements of Beauvoir, Brinton, Hyades, Martial, and Lista asserting the linguistic affinity of the Tehuelches to the Onas, and shows by a short comparative vocabulary more or less clear similarities in the words for 5 numbers, for 18 parts of the body, and for 26 common objects.

La Harpe, Jean François de, *ed.*

Abrégé de l'Histoire générale des voyages, 21 vols., Paris, 1780; 24 vols., ibid., 1820.

An abridgment of the Abbé Prévost's Histoire générale (q. v.).

Lahille, Fernando

(*a*) Fines de verano en la Tierra del Fuego. (Reprint from *Rev. Museo de La Plata*, 1898, VIII, 3–24.)

Contains (pp. 4–5) a few words on the distribution of the three Fuegian tribes.

(*b*) Los Onas: Tema presentado al Congreso científico internac. argent. (sección antrop.) en ocasión del 1^er^ centenario de la independencia. Buenos Aires, 1910. (Reference from Dabbene.)

Lajarte, Louis Henri Dufaure de

[Notes on voice, intonation, and chants of Yahgans.] (Quoted in Hyades, *q*, pp. 214–215.)

Laloy, L.

(*a*) Review of Dr. R. Martin's article, Zur physischen Anthropologie der Feuerländer, *Archiv f. Anthr.*, XXII, 155–217. (In *Anthropologie*, Paris, 1893, IV, 756–757.)

A summary and favorable criticism of Dr. Martin's article.

(*b*) Review of Dr. Hultkrantz' paper, Zur Osteologie der Ona- und Yahgan-Indianer des Feuerlandes. (Ibid., 1902, XIII, 402–404.)

A summary of Dr. Hultkrantz's results with a few additional remarks by Dr. Laloy himself.

Lambert, Charles J., *and Mrs.* **S.**

The voyage of the *Wanderer*, edited by Gerald Young, London, 1883.

Contains (p. 108) a few words on some natives—Alacaluf probably—met casually near Mount Tarn.

Lang, Andrew

The making of religion, 2d ed., London-Bombay-New York, 1900.

Contains (pp. 174–175 and passim) Mr. Lang's well-known deductions regarding the Fuegian "supreme Deity," based on Fitz-Roy (*a*, p. 180), and the latter in turn on statements made by York Minster, an Alacaluf, one of the party of four natives taken to England by Admiral Fitz-Roy. For fuller discussion of this point see Subject Bibliography, under Religion.

Latcham, Ricardo E.

Anthropología chilena. (In *Rev. Museo de La Plata*, 1909, XVI, 241–318; also in Trabajos IV° Congreso cient. [1° Pan-amer.] celebrado en Santiago de Chile, 25 dic. 1908–5 enero 1909, vol. XIV, Ciencias nat. antrop. y etnol., tomo II, Santiago, 1911, pp. 24–84.)

Contains important contributions to Fuegian and Chonoan somatology. See the following

Latcham, Ricardo E.—Continued

especially: Probable earliest Chilean races, pp. 247–248; Chonos, pp. 255, 257, 281–282, including the measurements of 8 crania, 3 from the Chonos Archipelago, 3 from the Guaitecas Archipelago, and 2 from Wellington Island (these last two are more likely Alacalufan); Alacaluf, pp. 279–280, including the measurements of 6 crania, 3 belonging to the Museum and 3 in the author's private collection; Yahgans, pp. 257, 277–278; Onas, pp. 258, 276–277; Huemules, pp. 282–284. Dr. Latcham's tribal divisions are based exclusively on cranial measurements, and his theories of relationship are broached with reserve. The extensive data, however, especially the original Chonoan and Alacalufan material, are very valuable, whether the theories be accepted or not. Outlines of a Yahgan, an Alacalufan, and a Chonoan cranium, all three in the author's private collection, in Trabajos, XIV, opposite pp. 50, 52, and 54, respectively.

Dr. Dabbene includes in his bibliography (*b*, p. 294) "Los Changos de la costa de Chile, Santiago de Chile, 1910," by the same author. This work may treat of the relations of the Changos to the Fuegians.

Latham, Robert Gordon

The natural history of the varieties of man, London, 1850.

Contains (pp. 414–419 passim) a few unimportant notes on the relationship of Fuegians.

Latzina, Francisco

Diccionario geográfico argentino, Buenos Aires, 1891; 3d ed., ibid., 1899.

The article "Tierra del Fuego" contains a few unimportant data on the Fuegians

[Lausbert, C. F.]

Recueil d'observations curieuses sur les moeurs . . . de différents peuples de l'Asie, de l'Afrique & de l'Amérique, 4 vols., Paris, 1749. (Reference from Mitre, I, pp. 93–94.)

Contains, according to Gen. Mitre (loc. cit.), in vol. III, ch. 5, data on Tierra del Fuego, consisting of extracts from the Lettres édifiantes (q. v.).

Lautaro Navarro, Avaria

(*a*) La Isla Dawson: La misión salesiana de San Rafael: Los indios fueguinos. (In *El Magallanes* [now a daily paper, but was in 1894–95 a weekly], Punta Arenas, Mar.-Apr., 1894, Nos. 12–15.) (Reference from Anrique, p. 422.)

(*b*) Censo jeneral . . . del Territorio de Magallanes, 2 vols., Punta Arenas, 1907.

Contains a few statistics of the native population; not important.

Lawrence, John

[Occasional letters.] (In *S. Amer. miss. mag.*)

Lawrence, John—Continued

These letters do not contain much anthropological material, although Mr. Lawrence should be in a position to speak with authority on the subject, having been on the Beagle Channel since 1869, when he took up missionary work with Mr. Bridges. Prof. Furlong considers (*j*) Mr. Lawrence's sons, Fred and Martin, the best living authorities on the Yahgans.

Le Bon, Gustave

Les Fuégiens. (In *Bull. Soc. de géogr.*, Paris, 1883, 7th ser. IV, 266–278.)

A lengthy but not important description of the Fuegians, based chiefly on Darwin, Bougainville.

Lecointe, Georges

Im Reiche der Pinguine: Schilderungen von der Fahrt der "Belgica," Germ. tr. by Wilhelm Weismann, Halle a. S., 1904.

Contains (ch. XII, pp. 60–64) a very good account of the culture of the Onas, following the same lines as Gerlache and Fr. Cook.

Lehmann-Nitsche, Roberto

(*a*) Tschon. (In Rudolf Martin's Wandtafeln für den Unterricht in Anthropologie, Ethnologie und Geographie, Zurich, [1902?], III, no. 24.)

Contains a splendid large colored plate of an Ona, after a photograph by Dr. Lehmann-Nitsche. The accompanying text gives a summary of Fuegian anthropology, including some original stature measurements of Onas by the writer.

(*b*) El grupo Tshon de los países magallánicos. (In *Actas del XVII° Congr. internac. de Americanistas*, sésion de Buenos Aires, 1910, ibid., 1912, pp. 226–227.)

A very brief abstract. See below, *d*.

(*c*) El problema indígena: Necesidad de destinar territorios reservados para los indígenas de Patagonia, Tierra del Fuego y Chaco, según el proceder de los Estados Unidos de Norte América. (Paper read before the Congr. cient. internac. de Buenos Aires, published in *Anales Soc. cient. argent.*, Buenos Aires, 1915, LXXX, 385–389.)

Deals with the proposal announced in the title rather than with the anthropology of the natives.

(*d*) El grupo lingüístico Tshon de los territorios magallánicos. (In *Rev. Museo de La Plata*, Buenos Aires, 1913, XXII, 2d ser. IX, 217–276.)

A very important paper, indispensable for the study of Ona linguistics. The most valuable

Lehmann-Nitsche, Roberto—Continued

part of the paper is the comparative Tehuelche-Ona glossary of 209 words (pp. 242-276). Both the Shílk'nam and Mánekenkn are represented in the Ona section. Ninety-seven Mánekenkn words from Mr. Lucas Bridges' manuscript vocabulary are given, while Shílk'nam equivalents for 152 of the 209 words are included. The Shílk'nam words are taken from Lista, *b*, Segers, O. Nordenskjöld, *c*, Beauvoir, *a*, Gallardo, and the author's own manuscript vocabulary. Dr. Lehmann-Nitsche's compilation, which gathers together lexical material scattered through some 25 publications and renders accessible invaluable manuscript data, makes relatively easy the task of verifying his conclusion that the verbal resemblances between the two chief Tehuelche dialects on the one hand and the two chief Ona dialects on the other are sufficiently clear to justify the classification of all four under the one Tshon group.

Among many other points of interest in the paper may be mentioned especially: The study of the names and division of the Onas (pp. 231-233), quotations from eleven authorities on the linguistic kinship of the Onas with the Tehuelches (pp. 234-237), discussion of Dr. Brinton's and Prof. Chamberlain's theories on the same subject (pp. 236-237).

(*c*) Vocabulario Ona (Shílk'nam). MS. (Reference from preceding article, p. 241.)

"Apuntado de la boca de los indios Choskiai y Kiotemén, en noviembre de 1898 en la ciudad de Buenos Aires durante la Exposición nacional donde estaban exhibidos" (ibid.); 63 of the words from this list are published in the preceding paper.

Dr. Lehmann-Nitsche spent four months in Tierra del Fuego in 1902 and since then has made at least one other visit. His interest in Fuegian linguistics dates from many years back. His work is characterized by thoroughness and attention to detail.

Leland, Lilian

Traveling alone: A woman's journey around the world, New York, 1890.

Contains (pp. 7-8) brief notes on a canoe load of Alacaluf met casually at Borgia Bay, in the Strait.

Lemay, Gaston

A bord de la *Junon*, Paris, 1879. (Reference from Anrique, p. 395.)

Not important, if we may judge from the article by Dr. Schlesinger (q. v.).

Lenz, Rudolf

(*a*) Die indianischen Elemente im chilenischen Spanisch, Halle a. S., 1902.

Contains on p. 33 the statement: "Heute sind sowohl die Changos als die Chonos ausgestorben."

Lenz, Rudolf—Continued

(*b*) Diccionario etimológico de las voces chilenas derivadas de lenguas indíjenas americanas, Santiago de Chile, 1904-1910.

The author states his opinion (p. 312) that the word Chono is indigenous, and that the Chonos were probably related closely to the Tehuelches and Onas. No proof adduced.

Lettres édifiantes et curieuses, écrites des missions étrangères par quelques missionnaires de la Compagnie de Jésus, 26 vols., Paris, 1702 (7)-43 (34 vols., 1702-1776); 4 vols., ibid., 1838-1843; Span. tr., 16 vols., Madrid, 1753-1757; Engl. tr., 2 vols., 2d ed. cor., London, 1762.

Contains letters by Fathers Nyel (vol. VII; 1838-1843 ed., vol. II; Span. tr., vol. III; Engl. tr., vol. II) and Labbe (vol. XV; 1838-1843 ed., vol. II).

L'Hermite, Jaques. 1624

See Johannes van Walbeeck.

Lista, Ramon

(*a*) La Tierra del Fuego y sus habitantes. (In *Bol. Inst. geogr. argent.*, Buenos Aires, 1881, II, cuad. 6, pp. 109-114; republ. in following work, pp. 9-17.)

Concise notes on the Fuegians, based chiefly on the then accessible written sources, and to a minor extent on observations made at Punta Arenas; not important.

(*b*) Viaje al país de los Onas: Tierra del Fuego, Buenos Aires, 1887; according to Lehmann-Nitsche, *d*, p. 240, also in *Revista Soc. geogr. argent.*, 1887, vol. V.

An important early contribution to the anthropology of the Onas, both the Shilk'nam and in all probability the Mánekenkn. The pertinent data are scattered through the book as follows: On the somatological, cultural, and linguistic resemblance of the Onas to the Tehuelches, a resemblance which the author rather overemphasized, pp. 53-56, 33, 79, 82, 89; stature measurements of three men of Policarp Cove, or Thetis Bay, of three girls and one boy of San Sebastian Bay, pp. 56, 81, and 126; culture, especially pp. 86-90, 95, 117-118, and above all 126-130 (on the Thetis Bay natives); language, 27 words of northern Ona, p. 82, 86 of southern Ona, pp. 144-145, 1 on p. 34, and 3 on p. 56 not found in above vocabularies.

The northern Ona words were gathered from four captives, three girls and one boy, who were taken a little south of San Sebastian Bay, and who accompanied the party for over a month. The southern Ona vocabulary was gathered from the natives at or near Thetis Bay, where the expedition halted for about three weeks. A comparison

Lista, Ramon—Continued

of this list with Dr. Lehmann-Nitsche's glossary shows it to be, to an appreciable extent at least, Mánekenkn rather than Shílk'nam, and in this case Señor Lista's cultural and somatological data on the Thetis Bay natives assume greater importance than has been given them, as the published material on Mánekenkn culture and somatology is extremely meager.

(*c*) Letter to Gen. Mitre. (In *Peterm. Mitt.*, Gotha, 1887, XXXIII, 156–157.)

Written from Thetis Bay, Jan. 1, 1887. Contains a few unimportant notes on the Onas.

(*d*) Lamentaciones del último Guaïcaro. (In *La Nación*, Buenos Aires, Apr. 9, 1895.) (Reference from Lista, *e*, p. 41.)

Contains, according to the author (ibid.), his Guaïcaro vocabulary. Cf. infra, *e*.

(*e*) Lenguas argentinas: Los Tehuelches de la Patagonia. (In *Anales Soc. cient. argent.*, Buenos Aires, 1896, XLII, 35–43.)

"All the Tehuelches . . . speak Tzoneka, as do also the Onas . . . who have an ancient dialect with accretions from the Yahgan, Alacaluf, and Guaïcaro . . . this last being the language of the former inhabitants of Brunswick Peninsula and King William's Land" (p. 37). On p. 41 the author publishes his "Guaïcaro" vocabulary of 19 words, gathered from a Guaïcaro medicine-man living at the time among Tehuelches. The vocabulary is clearly Alacalufan. On pp. 39–42 a discussion of Father Hervás', Father Molina's, and Perez García's statements about the Chonos, Caucaus, and Poyas.

Besides his travels among the Tehuelches, Señor Lista spent nearly three months from Nov., 1886, to Jan., 1887 in Ona territory, following the eastern coast of Tierra del Fuego from San Sebastian Bay south to Thetis and Good Success Bays. During this time he had considerable personal contact with the natives, especially with those of Thetis Bay, where he remained for about three weeks. He was one of the earliest explorers of the Ona country and was the first to publish an Ona vocabulary. His cultural data, except the assertion of Ona cremation (*b*, p. 55) and a minor point here and there, have been verified by later authorities.

Loaysa, *Frey* **García Jofre de. 1526**

(In Oviedo, Hist. gen. de las Indias, II, bk. 20, ch. 10; Herrera, Hist. gen. de los hechos de los castellanos, dec. 3, bk. 9, ch. 4; de Brosses, I, 150–158.)

The expedition met in 1526 some canoe-using natives in the Strait not far from "P. St. George" (apparently off Clarence Island). Oviedo may have gotten his information verbally from some one or other of the members of the expedition. While he gives only most meager details, his account is of interest as being the first record of an actual meeting of white men with the Fuegians. Magellan saw only the fires of the natives.

Löhr, Johann Andreas Christian

Die Länder und Völker der Erde, 4 vols., Leipzig, 1818–19.

Contains (IV, 401–403) a short, unimportant description of the Fuegians, based on the then extant written sources.

Lord's Prayer printed in the Yahgan language, London, 1889. (Reference furnished by Mr. Wilberforce Eames.)

Perhaps reprinted from Th. Bridges, *m*.

Lovisato, Domenico

(*a*) Di alcune armi e utensili dei Fueghini, e degli antichi Patagoni. (In *Atti Reale accad. dei Lincei*, anno CCLXXX, 1882–83, Memor. Classe di scienze mor., stor. e philol., 3d ser. XI, Roma, 1883, pp. 194–202.)

A valuable detailed description of the material culture of the Yahgans and to a lesser extent of the Alacaluf and Onas. Passim some 20 Yahgan words, and 1 Onan, all bearing on material culture. One plate, with 16 figures, illustrating artifacts.

(*b*) Appunti etnografici con accenni geologici sulla Terra del Fuoco. (In Cora's *Cosmos*, Torino, 1884–85, VIII, Kiökkenmödding, fasc. 4, pp. 97–108, Cenni etnografici, fasc. 5, pp. 129–151.)

The author's most important paper. The first part contains the only published detailed account of systematic excavations of the kitchen middens of Fuegia proper. Dr. Lovisato's investigation of the great Elizabeth Island shell heaps throws considerable light on the earlier cultural conditions prevailing in the Fuegian archipelago, though some of the conclusions he draws are perhaps a little hazardous. The second part of the paper, intended to supplement Capt. Bove's account, largely follows the latter as regards higher culture, but adds some important new data on material culture, chiefly Yahgan, with, however, many incidental references to the Onan and Alacalufan. Some 35 Yahgan words passim for artifacts and natural objects.

(*c*) Sulla collezione etnografica della Terra del Fuoco illustrata dall' dott. Colini. (In *Boll. Soc. geogr. ital.*, Roma, 1884, XXI, 2d ser. IX, fasc. 9, pp. 719–724.)

The writer takes exception to some points in Dr. Colini's article (q. v.). The latter, however, was almost certainly right in calling a star-shaped clubhead what Dr. Lovisato called an arrow-shaft polisher. Several Yahgan words passim.

Lovisato, Domenico—Continued

Dr. Lovisato accompanied the Bove expedition as geologist. He was in Fuegian territory from May 1 to June 17, 1882, and during this time had the same opportunities and advantages as Capt. Bove (q. v.). He was a careful and exact observer. His chief original contribution, distinct from Capt. Bove's, is his splendid study of the Elizabeth Island kitchen middens. The native words he gives passim were gathered directly from five Yahgans who spoke some English, and one of whom spoke Ona. The Yahgan words were then submitted for correction, first to Mr. Th. Bridges and afterwards to Messrs. Whaits and Lawrence (*b*, p. 132; *c*, p. 722).

Lozano, Pedro

Historia de la Compañia de Jesus de la provincia del Paraguay, 2 vols., Madrid, 1754–55.

Father Lozano gives (vol. II, bk. 5, ch. 4, and bk. 7, ch. 3 and 16) an important account of the first missions to the Chilotans and Chonos in 1609–1614. This account contains (passim, see especially pp. 31, 33–34, 454, 558–561) some valuable data on the culture of the Chonos, and (pp. 456, 560) some interesting information regarding Father Matheo Estevan's (q. v.) studies and compositions in the Chonoan language. While Father Lozano does not write of the Chonos from personal experience with them, he had access to an extensive collection of published narratives and manuscript missionary reports and letters. The description of the Chonos and Huilles on pp. 33–34 is apparently taken from Del Techo, pp. 159–160.

Lubbock, *Sir* John

See Avebury.

Lucy-Fossarieu, Pierre Henry Richard de

Ethnographie de l'Amérique antarctique, Patagons, Araucaniens, Fuégiens. (*Mémoires Soc. d'ethnogr.*, no. 4, Paris, 1884, pp. 103–179.)

An extensive monograph, the Fuegian section (pp. 155–178) of which is based on a comprehensive study of the then extant written sources and on personal observation of the group of 11 Alacaluf in the Jardin d'Acclimatation at Paris. The paper is well written, but in the light of newer material published since the eighties would need very considerable revision. The author's account of the mourning rite (?) witnessed at Paris (pp. 173–174), and the short vocabulary (p. 175), are of special interest. These 12 words, most of which by comparison with the other accessible Alacalufan vocabularies appear to make some approach to correctness, were gathered under very unfavorable conditions by the author from the group mentioned above.

A summary of the monograph was published by Hale (q. v.).

Luschan, Felix von

Über Boote aus Baumrinde. (In *Aus der Natur*, Leipzig, 1907–8, III, I. Halbband, pp. 15–22, 49–53.)

Contains on p. 22 an account and illustration of the Fuegian bark canoe, ascribed, by oversight no doubt, to the Onas. The paper is interesting for comparison with bark canoes from other parts of the world. Excellent illustrations.

Maccarthy, Jacques, *ed.*

Choix de voyages dans les quatre parties du monde, 10 vols., Paris, 1821–22.

Contains (x, 242–265) a French translation of de Córdoba's lengthy description of the Alacaluf met at Port Famine and Port Gallant on the first expedition.

Macdouall, John

Narrative of a voyage to Patagonia and Tierra del Fuégo through the Straits of Magellan in H. M. S. *Adventure* and *Beagle* in 1826 and 1827, London, 1833.

Contains (especially pp. 104–120, 125–135, 175–180) rather copious cultural data. The writer accompanied the first expedition, as the above dates show. He had good opportunities for first-hand study. He seems to have been an exact observer, but his account is sketchy, popular, anecdotal, and lacking in detail. One Alacaluf word, p. 110.

Machado, Francisco

Viajes del piloto Don Francisco Machado a los archipiélagos occidentales de Patagonia [1768–69]. (Ed. by Francisco Vidal Gormaz, in *An. hidr. mar. Chile*, Santiago, 1889, XIV, 57–149.)

The diaries and Beranger's instructions contain a few data which have a slight bearing on the problem of Chonoan linguistic relationships. See pp. 72, 78, 84–86, 89, 95, 105, 121.

Magalhâes, Fernâo de. 1520

Magellan saw no natives when he passed through the Strait in 1520, but "one night a great number of fires were seen, mostly on their left hand" (Maximilianus Transylvanus, De Moluccis insulis, Cologne, 1523; Oviedo, Hist. gen. de las Indias, II, bk. 20, ch. I). The hut and over 200 graves found apparently at Possession Bay (Herrera, Hist. gen. de los hechos de los castellanos, dec. 2, bk. 9, ch. 14), were in all probability Tehuelchean. Cf. for bibliography, Oscar Koelliker, Die erste Umseglung der Erde durch Fernando de Magallanes und Juan Sebastian del Cano, München-Leipzig, 1908.

Magoths, W.

A briefe relation of a voyage of *The Delight* a ship of Bristoll one of the consorts of M. John Chidley esquire and

Magoths, W.—Continued

M. Paul Wheele, made into the Straight of Magellan . . . Begun in the yeere 1589. (In Hakluyt, 1600, III, 839–840; ed. by Goldsmid, vol. XVI; ed. by Hakl. soc., vol. XI; de Brosses, I, 234–235.)

Contains a very brief note of an encounter in 1590 with natives near Port Famine; not important.

Manouvrier, Léonce

(*a*) Sur les Fuégiens du Jardin d'acclimatation. (In *Bull. Soc. d'anthr. de Paris*, 1881, 3d ser. IV, 760–774.)

Observations upon and measurements of the 4 men, 4 women, and 3 children of the Hagenbeck group of Alacaluf exhibited at Paris. A few notes on mentality and on domestic culture.

This paper is followed by a long discussion, taken part in by MM. Topinard (q. v.), de Mortillet, Nicole, Hovelacque, Deniker, Bordier, Le Bon, Gignoux (pp. 774–790), by MM. Hovelacque, Nicole, Nicolas, Leguay (pp. 841–868), and by MM. Deniker, Girard de Rialle, Bordier, Hamy, Vinson, Nicolas, Leguay (ibid., 3d ser. V, 12–22). The discussion was largely based on personal observation of the same group; see especially the remarks by Topinard.

(*b*) Aptitude á distinguer les couleurs. (Ibid., 1886, 3d ser., IX, 706–707.)

Conclusions from experiments carried out on the same group of Alacaluf, particularly on Lise, one of the women.

(*c*) Le cerveau d'un Fuégien. (Ibid., 1894, 4th ser. V, 595–614; abstr. tr. in *Rep. Brit. assoc. adv. sci.*, London, 1894, pp. 787–788.)

Results of a post-mortem examination of the brain of a 3-year-old boy of the same group.

Mantegazza, Paolo, *and* **Regalia, Ettore**

Studio sopra una serie di crani di Fuegini. (In *Arch. per l'antrop. e l'etnol.*, Firenze, 1886, XVI, fasc. 3, pp. 463–515.)

An important paper on Yahgan somatology. The authors give the description and measurements of 18 skulls (12 ♂ and 6 ♀) of adult Fuegians, all Yahgan except 1 ♂. This material was brought back by the first Bove expedition of 1882. Plates XIX–XX.

Marcel, Gabriel

(*a*) Les Fuégiens à la fin du XVIIe siècle d'après des documents français inédits. (In *C. R. Congrès internat. des Américanistes*, 8th sess., Paris, 1890, ibid., 1892, pp. 485–496.)

Marcel, Gabriel—Continued

A valuable article on Alacalufan culture, giving interesting extracts from five unpublished narratives, one by La Guilbaudiere (q. v.), and the other four, based on observations made during the 1699 expedition, by Beauchesne-Gouin, de Labat, Du Plessis, and an anonymous officer, all members of the expedition. La Guilbaudiere accompanied Beauchesne-Gouin, but his account is based on his earlier voyage between 1688 and 1696. The 1699 expedition under Beauchesne-Gouin, remained many months in the Strait of Magellan, chiefly in the eastern half, and had considerable contact with the Indians. The combined narratives form one of our most important early sources for Alacalufan culture.

(*b*) Vocabulaire des Fuégiens à la fin du XVIIe siècle. (Ibid., pp. 643–646.)

For comment see La Guilbaudiere.

(*c*) Les Fuégiens au XVIIe siècle d'après des documents français inédits. (In *Revue de géogr.*, Paris, 1891, XXVIII, 104–111.)

This article covers approximately the same ground as the author's first one, but is somewhat differently worded and is a little shorter.

Marchiafava, Ettore, *and* **Carruccio, Antonio**

Antropologia della Terra del Fuoco. (In *Bull. Reale accad. medica di Roma*, 1886–87, XIII, 111–112.)

A short summary of the conclusions reached by Dr. Sergi (q. v.) in his article in the *Atti* of the same academy for 1886–87.

Marguin, G.

La Terre de Feu. (In *Bull. Soc. de géogr.*, Paris, Nov., 1875, 6th ser. X, 485–504.)

Contains (pp. 497–502) a fair description of the northern Onas, interesting inasmuch as it was written by a pioneer, but hardly important. The author accompanied the Pertuiset expedition, proceeding in part inland but chiefly along the coast from Gente Grande Bay to Useless Bay. During this time (about a month, Dec., 1873–Jan., 1874) he saw the Onas only twice.

Marin, Aylic

Au loin: Souvenirs de l'Amérique du Sud et des îles Marquises, Paris-Lyon, 1891.

Contains (pp. 94–98, 112–117) accounts of the Alacaluf, partly from written sources and partly from personal observation of natives met casually at St. Nicholas Bay and Port Grappler. Not important.

Marin, Benito, *and* **Real, Julian**

Expedicion que los Padres Fr. Benito Marin, y Fr. Julian Real, misioneros

Marin, Benito, *and* **Real, Julian**—Contd.
del colegio de Ocópa, y destinados á las misiones del archipiélago de Chilóe, hiciéron á últimos del año de 1778, y principios del de 1779, á los archipiélagos de Guaitécas, y Guaianeco . . . (Abstr. in González de Agüeros, pp. 217–242.)

Contains (pp. 217–218, 235–236) a few stray notes bearing on the culture, language, and history of the Chonos. The two missionaries left Castro on Oct. 21, 1778, got as far as the Guaianeco Islands, and brought back 11 of the natives to Castro, which they reached early in March, 1779.

Mariño de Lovera, Pedro
Crónica del reino de Chile. (In *Col. hist. Chile*, Santiago, 1865, vol. VI.)

Contains (p. 372) a brief unimportant mention of the (Chilotan) plank boat.

Marsh, John William
(*a*) *and* **Stirling,** *Bishop* **Waite Hockin.**
The story of Commander Allen Gardiner, R. N., 3d ed., London, 1874.

Contains many extracts from the journals of Bishop Stirling and Capt. Gardiner and from letters by the Rev. G. Pakenham Despard. All three had had much contact with the Yahgans. These extracts throw considerable light on Yahgan mentality and morality, and contain some good data on material culture. See especially pp. 53, 56–57, 108–110, 119–120, 131.

(*b*) Rays of sunlight in darkest South America, 3d ed., London, 1890; 1st ed. published 1873 under title "First fruits of the South American mission;" 2d ed. enlarged, published 1883 under title "Narrative of the origin and progress of the South American mission, or First fruits enlarged."

Of less value than the preceding work for Yahgan anthropology; still there is found passim a fair amount of material bearing on mental and moral culture.

Martial, Louis Ferdinand
Mission scientifique du cap Horn 1882–83, vol. I, Histoire du voyage, Paris, 1888; Span. tr. in *An. hidr. mar. Chile*, 1889, XIV, 255–547.

A very important source on Yahgan culture in all its phases. Contents of anthropological interest: Division of Fuegian tribes, short notes on Onas and Alacaluf, pp. 184–186; descriptive somatology of Yahgans with stature measurements of 121 adults, pp. 186–187; Yahgan culture, pp. 187–215; history of the English mission, pp. 216–231; d'Arquistade's (q. v.) Relation, pp. 266–269; brief notes passim pp. 30–31, 45, 118–119, 128–130, 180–181. Capt. Martial's account of Yahgan culture is briefer than Dr. Hyades', from which it does not differ materially, except perhaps for a slightly less favorable verdict on Yahgan morality. Capt. Martial's work contains the following data not found in Dr. Hyades': 3 myths, pp. 213–214; 4 chants taken and arranged by de Carfort, pp. 209–211; oaths (?), pp. 207–208; religion, pp. 211–212. Plates VI–VII.

Capt. Martial spent most of the year from Sept., 1882, to Sept., 1883, cruising around, almost exclusively in Yahgan territory. He did not learn the Yahgan language, but otherwise had about the same opportunities for first-hand study as Dr. Hahn had. The data gathered by him from personal observation were largely supplemented through information given by Dr. Hahn, and by Mr. Thomas Bridges with whom he had frequent meetings (p. 183).

Martin, Carl
(*a*) Ueber die Eingeborenen von Chiloe. (In *Zeitschr. f. Ethnol.*, Berlin, 1877, IX, 161–181, 317–330.)

Contains an excellent description of the plank boat on pp. 326–327, and a few other notes on Chonoan culture on pp. 317–318.

(*b*) Der Chonos-Archipel nach den Aufnahmen des chilenischen Marine-Kapitäns E. Simpson. (In *Peterm. Mitt.*, Gotha, 1878, XXIV, 461–466.)

Article based on E. Simpson (q. v.).

(*c*) Der Archipel von Chiloe nach dem *Anuario de la marina de Chile*, Bd. VIII, und andern Quellen. (Ibid., 1883, XXIX, 401–404.)

Contains (pp. 402, 404) a few notes on the early settlement of Chonos in mission stations.

(*d*) Landeskunde von Chile, Hamburg, 1909.

Contains a fair summary of Fuegian and Chonoan anthropology on pp. 360, 364–368, 383–390.

Dr. Martin practised medicine for 30 years at Puerto Montt. It does not appear, however, that he had very extensive personal experience with the natives of the Chilean Archipelagoes or of Fuegia.

Martin, Rudolf
(*a*) Ein Beitrag zur Osteologie der Alakaluf. (In *Vjs. Naturforsch. Ges.*, Zurich, 1892, XXXVII, 302–313.)

Description and measurements of the complete skeletons of 2 Alacaluf men and 3 Alacaluf women, four of whom died at Zurich and one on the way thither. These data are incorporated in the following paper.

(*b*) Zur physischen Anthropologie der Feuerländer. (In *Arch. f. Anthr.*,

Martin, Rudolf—Continued

Braunschweig, 1893–94, XXII, 155–218.)

A very important monograph coordinating all the then extant sources on Yahgan and Alacalufan anatomy. Of the 21 skeletons and 58 skulls included, the great majority were Yahgan, the rest Alacalufan. Dr. Martin's conclusion was that the Alacaluf differ from the Yahgans by a slightly taller stature and by a slightly greater tendency to dolichocephalism (pp. 159, 210–211). Bibliography, pp. 216–217. 2 plates.

Summary of this article by Laloy, *a* (q. v.); summaries of the two preceding articles in *Revue mensuelle de l'École d'anthrop. de Paris*, 1893, III, 34–35, 265–266.

(*c*) Wandtafeln für den Unterricht in Anthropologie, Ethnologie und Geographie, 3 vols., Zurich, [1902?].

For comment, see Lehmann-Nitsche, *a*.

Mason, Otis Tufton

(*a*) Influence of environment upon human industries or arts. (In *Smithson. report* for 1895, Washington, 1896, pp. 639–665.)

Contains (pp. 655, 660–661) a summary of Fuegian culture.

(*b*) Primitive travel and transportation. (In *Rep. U. S. nat. mus.* for 1894, ibid., 1896, pp. 237–593.)

Contains references to Fuegian basketry on pp. 482, 485; figure 181.

(*c*) Aboriginal American harpoons. (Ibid. for 1900, ibid., 1902, pp. 189–304.)

Contains (pp. 213–214) a description of the Fuegian harpoon, based on museum material. Plate 2 and figure 12.

(*d*) Aboriginal American basketry. (Ibid. for 1902, ibid., 1904, pp. 171–548.)

Contains references to Fuegian basketry on pp. 245, 247–248, 379–380, 497, 526, 532, 538.

The last three papers are valuable for comparison of Fuegian with other American harpoons and half-hitch basketry and netting. Besides the simple weave described by the author, there are two other weaves in Fuegia, the one apparently a half-hitch and wrapped or knotted coiled (illustration in Hyades, *h*, p. 517, and *q*, plate XXXII, figure 8), the other a crude woven variety (illustration in Outes, *d*, p. 138; cf. also Hyades, *q*, p. 303, under *tçaouanouch*).

Maximilianus Transylvanus

De Moluccis insulis . . . Cologne, 1523; Ital. tr., in Ramusio, vol. I, 374–379; Engl. tr., Hakl. soc., vol. LII, London, 1874; Span. tr., Medina, Col. doc. inéd., vol. I, 256–297.

For comment, see Magalhães.

Mayne, Richard Charles

On the Straits of Magellan and the passages leading northward to the Gulf of Peñas. (In *Rep. Brit. assoc. adv. sci.*, London, 1869, Notices and abstracts, pp. 164–165; *Athenaeum*, London, Sept. 11, 1869, p. 343; *Peterm. Mitt.*, Gotha, Oct. 28, 1869, XV, 385–387.)

Contains unimportant notes on Alacaluf encountered in 1866–1869. Somewhat fuller details in Cunningham (q. v.).

M'Cormick, Robert

Voyages of discovery in the Arctic and Antarctic seas and round the world, 2 vols., London, 1884.

Contains (I, 300–306, 311, 318–322) a good deal of first-hand information on the culture of the Yahgans of Hermite Island, with whom the author had considerable contact in Sept.-Oct., 1842, while with the Ross expedition.

Medina, José Toribio

(*a*) Los aboríjenes de Chile, Santiago, 1882.

This classic, though treating chiefly Araucanian anthropology, sums up or quotes literally almost all the Chonoan material contained in the earlier sources, especially Ercilla, Goicueta, Pietas, Lozano, Byron, *a*, González de Agüeros, Olivares, Rosales, *a*, *b*, García, *a*, and Pérez García. Discussion of data and criticism of sources are usually lacking. On p. 108 are given the measurements of three incomplete skulls—one Fuegian and two Chonoan (one from the Chonos Archipelago and one from Puerto Americano); illustrations nos. 228–230.

(*b*) Coleccion de documentos inéditos para la historia de Chile . . . 29 vols., Santiago, 1888–1901.

Vol. I contains a Spanish translation of the Epistle of Maximilianus Transylvanus.

(*c*) Biblioteca hispano-chilena (1523–1817), 3 vols., ibid., 1897–1899.

(*d*) Biblioteca hispano-americana (1493–1810), 7 vols., ibid., 1898–1907.

The last two works contain valuable bibliographical data on the earlier sources, especially the Spanish, for Fuegian and Chonoan anthropology. Vol. I of the Bibl. hisp.-chil. contains Father Ponce de Leon's Descripcion in full.

Mehnert, Ernst

Catalog der anthropologischen Sammlung des anatomischen Instituts der Universität Strassburg i. E. (In *Die*

Mehnert, Ernst—Continued
anthrop. Sammlungen Deutschlands, vol. xv, Braunschweig, 1893.)

Contains (pp. 70–71) the description and measurements of an Alacalufan skull taken from a cave near Cape Türn in Magdalen Sound. Cf. also p. 75.

Menendez, Francisco
Segunda expedicion hecha á los referidos archipiélagos de Guaitécas, y Guaianeco, por los religiosos misioneros P. Fr. Francisco Menendez, y P. Fr. Ignacio Bargas . . . á fines del año de 1779, y principios del de 1780, segun consta de la carta escrita al P. Fr. Julian Real por el citado P. Fr. Francisco Menendez, que es como se sigue. (In González de Agüeros, pp. 243–248.)

Contains on pp. 245–248 a few notes that have a slight bearing on the question of the linguistic relationship of the Chonos to the Chilotans. Fathers Menendez and Bargas returned to Castro on Jan. 11, 1780, having gotten as far south as the Guaianeco Archipelago during their three months' expedition. They brought back 32 (30) natives with them.

Meriais, *Père*
Traversée du détroit de Magellan, et observations sur les Patagons et les Feugiens. (In *Nouvelles annales des voyages et des sciences géogr.*, Paris, 1847, cxiii, 5th ser. ix, 377–392.)

Contains a fairly good account of Alacaluf encountered at Port Gallant, where the writer made a stay of eight days. Two native words, *chérou*, "canoe," and *faïa*, "it is cold."

Middleton, R. Morton
See Myres.

Mills, Philo Laos
Prehistoric religion. (In preparation, to be published Washington, probably 1917.)

Contains passim the essential data on Fuegian religious and quasi-religious culture. This scholarly work should be an excellent starting point for comparative study, as the author in his treatment of uncivilized peoples has collected and coordinated practically all that is known of the religious and quasi-religious culture of those on the same low plane of general cultural development as the Fuegians.

Mission de la Terre de Feu. (In *La Nature*, Paris, 1er sem., 1884, xii, 273–275, 310–314, 362–364.)

Unsigned articles written by members of the French Cape Horn Expedition 1882–83. The first and second articles contain a good but short summary of Yahgan culture. Some 10 Yahgan words passim in second. Map and 4 woodcuts.

Mitre, Bartolomé
Museo Mitre: Catálogo razonado de la sección lenguas americanas, con una introducción de Luis María Torres, 3 vols., Buenos Aires, 1909–1911.

Contains important material on the Fuegian and Chonoan languages (i, 153–189). Of special interest is the full text (pp. 179–189) of Dr. Spegazzini's Elementi di grammatica Iaghan, sistema Ollendorf. The critical bibliography (pp. 153–179) of 20 works and articles on the Fuegian languages contains some minor inaccuracies but is nevertheless a valuable study; see especially the following: The accounts of Mr. Lucas Bridges' MS. Ona vocabulary, p. 164, and of Dr. Spegazzini's MS. Ona-Yahgan-Alacaluf vocabulary, pp. 176–177; the Rev. Thomas Bridges' letter, pp. 161–162; the abstracts of Dr. Adam's Grammaire de la langue Jâgane, pp. 168–172, and of Dr. Spegazzini's Apuntes filológicos, pp. 175–176.

Gen. Mitre's critical bibliography was largely drawn upon and made accessible to English-speaking readers by Prof. Chamberlain (*a* and *b*).

Molina, Juan Ignacio
(*a*) Compendio della storia geografica, naturale e civile del regno del Chile, Bologna, 1776; Germ. tr., Hamburg, 1782; Span. tr. in *Col. hist. Chile*, vol. xi, 1878.

Contains (pt. 2, pp. 209–210) meager unimportant notes on the Chonos.

(*b*) Saggio sulla storia naturale del Chili, Bologna, 1782; Germ. tr., Leipzig, 1786; Span. tr., Madrid, 1788, and repr. in *Col. hist. Chile*, vol. xi, 1878; Fr. tr., Paris, 1789; Engl. tr., Middletown, Conn., 1808, and repr. London, 1809.

Contains (p. 340) a paragraph on the Poyas and Caucaus, the latter probably Chonos. "I Caucau sono di mediocre statura, hanno parimente una lingua assai diversa [dal Chilese] . . ." See also p. 336, and map opp. p. 33.

(*c*) Compendio de la historia civil del reyno de Chile, Madrid, 1795 (tr. of Saggio sulla storia civile, Bologna, 1787); in *Col. hist. Chile*, xxvi, 1901; Engl. tr., Middletown, 1808, and London, 1809.

Bk. 4, ch. 2, contains a description of the (Chilotan) plank boat.

Mondière, A. T.
Note sur quelques moulages d'organes génitaux des deux sexes pris par le

Mondière, A. T.—Continued

Dr. Hyades sur des Fuégiens. (In *L'Homme*, Paris, 1885, II, 111–114.)

Measurements and description of 9 casts; quoted in extenso in Hyades, *q*, pp. 153–154.

Montanus, Arnoldus

De nieuwe en onbekende weereld, Amsterdam, 1671; Germ. tr. by Olfert Dapper, ibid., 1673; Engl. tr., altered, by John Ogilby, London, 1671.

Contains (pp. 572–576; Germ. tr., pp. 644–649; Engl. tr., pp. 649–653) the Fuegian anthropological data, much abbreviated, from some of the older accounts.

Montemayor, Jerónimo de. 1641

See Rosales, *a*.

Montémont, Albert Étienne de, *ed.*

Histoire universelle des voyages effectués par mer et par terre dans les cinq parties du monde, 46 vols., Paris [1833–1837].

Contains the following voyages: Byron's, vols. II–III; Wallis', vol. III; Cook's first, vols. V–VII (these three from Hawkesworth); Bougainville's, vol. IV; Cook's second, vols. VII–IX; Weddell's, vol. XXI.

Moraleda i Montero, José Manuel de

Esploraciones jeográficas e hidrográficas practicadas por don José de Moraleda i Montero, alférez de fragata i primer piloto de la armada, 1786–1788, 1792–1796, introd. por D. Barros A., repr. Santiago de Chile, 1888, from *An. hidr. mar. Chile*, 1887–88, vols. XII–XIII.

Contains a few interesting data on the culture (pp. 324, 329, 350–351, 358–359, 372) and history (pp. 79, 124, 306–307, 332, 435, 474) of the Chonos.

Morales, Ruben

Instrucciones náuticas para la navegacion de la costa comprendida desde el estrecho de Magallanes al golfo de Trinidad i canales intermedios: Campaña hidrográfica del crucero Errázuriz, en 1910. (In *An. hidr. mar. Chile*, Valparaiso, 1912, XXVIII, 59–77.)

Contains a note (p. 62) on the apparently limited nomadism of the natives from Trinidad Channel to the Queen Adelaide Archipelago.

Moreno, Francisco P.

(*a*) Viaje á la Patagonia austral . . . 1876–77, vol. I, Buenos Aires, 1879; 2d ed., ibid., 1879.

(*b*) Apuntes sobre las tierras patagónicas. (In *Anales Soc. cient. argent.*, ibid., 1878, V, entrega 4, pp. 189–205.)

Moreno, Francisco P.—Continued

(*c*) Patagonia: Resto de un antiguo continente hoy sumerjido. (Ibid., 1882, XIV, entrega 3, pp. 97–131.)

The only item of interest on the Fuegians in the three foregoing papers is the author's consistent use (*a*, 1st ed., p. 459, 2d ed., p. 461; *b*, p. 201; *c*, p. 109) of the spelling O'onas instead of Onas. His reason for so spelling it is not stated, nor is any given for the use (*a* and *b*, same pp.) of the tribal name "Elisalá'as" (=Elizabeth Islanders?).

(*d*) Notes on the anthropogeography of Argentina. (In *Geogr. jour.*, London, Dec., 1901, XVIII, no. 6, pp. 574–589.)

Contains (pp. 577–579) some suggestions on the probable origin and relationship of the Yahgans, Alacaluf, and Onas, and a few notes on their mental capacity.

Mori, Juan de

Carta de Juan de Mori a un amigo suyo de Sevilla que fué con Magallanes. (Ed. by Ramon Guerrero Vergara, in *An. hidr. mar. Chile*, Santiago, 1881, VII, 559–576; cf. de Brosses, I, 164–167.)

The writer, who accompanied Simon de Alcazaba's expedition in 1535, states (p. 562) that the Indians of St. Martha and St. Magdalen Islands near the eastern end of the Strait, had nets made of sinew for catching birds.

Mortillet, Adrien de

Exposition des collections de l'expedition du cap Horn. (In *L'Homme*, Paris, 1884, I, 210–213.)

Contains an excellent description of the Yahgan artifacts brought back by the expedition. 1 plate of woodcuts.

Morton, Samuel George

Crania americana, Philadelphia-London, 1839.

Contains (pp. 64–65 and passim) a few unimportant notes on the Fuegians; some inaccuracies.

Mossman, Robert Cockburn

The voyage of the *Uruguay*. (In Voyage of the *Scotia*, by Robert Neal Rudmose Brown, Robert Cockburn Mossman, and James Hunter Harvey Pirie, Edinburgh-London, 1906, ch. 17, pp. 354–366.)

Contains (pp. 365-366) very brief notes on some natives, probably Alacaluf, met casually in Jan., 1905, in the vicinity of Magdalen Channel.

Moulinier, Léon

See Pertuiset.

Müller, Friedrich

(*a*) Allgemeine Ethnographie, 2d ed., Wien, 1879.

Contains (pp. 24, 276, 296–297) unimportant references to the Fuegians from the older sources.

(*b*) Die Sprache der Feuerländer (Jāgan). (In Grundriss der Sprachwissenschaft, Bd. IV, Abt. 1, Nachträge zum Grundriss aus den Jahren 1877–1887, Wien, 1888, pp. 207–221.)

An extensive exposition of Yahgan grammar; sources not stated.

Murr, Christoph Gottlieb von, *ed.*

Nachrichten von verschiedenen Ländern des spanischen Amerika, 2 vols., Halle, 1809–1811.

Vol. II contains Father José García's Diario.

Murray, M.

[Extract from report.] (In King, q. v.)

Mr. Murray was master of the *Beagle* from 1828 to 1830. The extract gives (King, p. 448) a few notes on some Onas met at Valentyn Bay.

Myers, Sarah Ann

Self-sacrifice, or the pioneers of Fuegia, Philadelphia, 1861.

An account of the first efforts of the English missionaries to settle in Fuegia. Contains (pp. 225–231) a general description of the Fuegians. Parts of the narrative on pp. 214–300 throw some light on Yahgan character.

Myres, John Linton

Implements and ornaments of the Yahgans of Fuegia: with notes by R. Morton Middleton. (In *Man*, London, 1902, II, no. 73, p. 97.)

A few descriptive notes on some Yahgan artifacts in the collection of the South American Missionary Society at London; 1 excellent plate.

Narbrough, *Sir* John

A journal kept by Capt. John Narbrough. (In An account of several late voyages and discoveries to the South and North . . . by Sir John Narbrough Capt. Jasmen Tasman, Capt. John Wood and Fred. Marten of Hamburgh, London, 1694; Harris, vol. II, bk. 4, ch. 1; Fr. tr. in Coreal, Amsterdam ed., vol. III, Paris and Brussels ed., vol. II; de Brosses, II, 1–43; abstr. in Prévost, vol. XV.

Contains (pp. 63–66, 69–70) good accounts of the natives, probably Alacaluf, met at Elizabeth Island and Port Famine in 1670.

Nodal, Bartolomé García, *and* **Gonzalo de**

Relacion del viaje qve por orden de Sv Mag^{d} y acverdo del Real consejo de Indias hizieron los capitanes Bartolome Garcia de Nodal, y Gonçalo de Nodal hermanos, Madrid, 1621; Engl. tr. by Sir Clements Markham, Hakl. soc., 2d ser., vol. XXVIII, London, 1911; de Brosses, I, 421–425; abstr. in Nyel, and in Laet, bk. 12, Lat. and Fr. tr., bk. 13.

Contains the earliest account of the Onas of Good Success Bay. The Nodals give a short but good description of the natives encountered there in Jan., 1619.

Noguera, Juan M.

Conferencia dada por el representante del Instituto. (In *Bol. Inst. geogr. argent.*, Buenos Aires, 1884, v, 147–165.)

Contains (pp. 163–165) a Yahgan vocabulary of 254 words. The writer does not state how he gathered this list. He accompanied Capt. Bove on the latter's second expedition in 1884, making in addition a reconnaissance in an open boat into the territory of the southern Yahgans. The Noguera vocabulary is quite distinct from the shorter vocabulary published two years previously by Capt. Bove.

Noort, Olivier van

(*a*) Extract oft Kort verhael wt het groote Journael vande wonderlijcke ende groote reyse / ghedaen door de strate Magellana eñ andere vremde konincrijcken eñ landen / byden E. Olivier van Noort, admirael eñ generael vande vier schepen / toegerust tot Rotterdam / A°. 1598., Rotterdam, 1601.

"Waarschijnlijk vóór het volgende journaal in 't licht gegeven. Het eenige mij bekende ex. is in de Biblioth. te N. York. Vgl. Sabin N°. 55432" (Tiele, *b*, p. 180).

Contains passim a few only of the cultural details from the following complete journal.

(*b*) Beschryvinghe vande voyagie om den geheelen werelt cloot / ghedaen door Olivier van Noort van Utrecht . . . om te gaen door de strate Magellanes, etc., Rotterdam, [published in 1601 according to Muller, quoted by Sabin]; 2d [?] ed., ibid., 1602; abridged in Commelin, vol. I, and Hartgers; Fr. tr., Amsterdam, 1602, 2d ed., 1610; de Renneville, vol. II, Rouen ed., vol. III; Germ. tr., Amsterdam, 1602 (Tiele, *a*, p. 30; *b*, p. 181); Lat. and Germ. tr., de Bry, pt. IX; Engl. tr., Purchas, Pilgrimes, vol. I, bk. 2, ch. 5; de Brosses,

Noort, Olivier van—Continued

I, 295–305; abstr. in E. C. Drake; in Harris, vol. I, bk. 1, ch. 6; in Kerr, vol. X; in Bancarel, vol. II; in Prévost, XIV; in Laet, bk. 12, Lat. and Fr. ed., bk. 13.

Contains numerous details on the natives, probably Alacaluf, encountered in 1599–1600 on the "Penguin Islands" (Martha and Magdalen Islands) just south of the second narrows toward the eastern end of the Strait of Magellan, and at "Maurice" and "Memnistes" Bays on the southern shore of the western Strait. The natives found on the Penguin Islands, van Noort was told by a captured Indian boy (1st ed., p. 21; Commelin, I, 10; de Brosses, I, 298–299), called themselves Enoo, their land Cossi, the small island they were on Talcke, the larger island Castemme; the boy also spoke of the Kemenetes of Karay, the Kennekas of Karamay and the Karaike of Morine, all medium-sized peoples, and of the Tirimenen giants of the land of Coin. Van Noort also gives four native words: *talcke*, "ostrich," *cassoni*, "guanaco" (?), *oripoggre*, "a kind of bird," and *compogre*, "penguin." Neither the tribal names or other words have been confirmed by later investigators; they are all probably erroneous, with the possible exception of Coin (= *Chōn?*). Cf. however, Furlong, *r*, p. 185: the western Onas are called *Kenenica Chon.*

Nordenskiöld, Nils Erland Herbert

Une contribution à la connaissance de l'anthropogéographie de l'Amérique. (In *Jour. Soc. des Américanistes de Paris*, 1912, n. s. IX, fasc. 1, pp. 19–25; in Swedish, in *Ymer*, Stockholm, 1912, XXXII, 181–187.)

The author calls attention to the interesting resemblances under 13 chief headings between the aboriginal cultures of extreme North America and extreme South America. The facts, he holds, point to the wedging in of a later culture, which has been influenced from Asiatic and Melanesian sources. He agrees to a slight extent with Dr. Graebner's theory.

Nordenskjöld, Nils Otto Gustaf

(*a*) Eldslandet. (In *Ymer*, Stockholm, 1894, XIV, 203–210.)

Contains (pp. 208–209) a few unimportant and very brief notes on the three Fuegian tribes.

(*b*) Den eldsländska ögruppen. (Ibid., 1896, XVI, 247–258.)

Contains (p. 255) half a paragraph on the Yahgans and Alacaluf; not important.

(*c*) Das Feuerland und seine Bewohner. (In *Geogr. Zeitschr.*, Leipzig, 1896, II, 662–674.)

Contains (pp. 671–672) brief notes chiefly on the mental capacity and kinship of the Onas.

Nordenskjöld, Nils Otto Gustaf—Contd.

(*d*) Reisen im Feuerland. (In *Verh. Deutsch. wiss. Vereins zu Santiago de Chile*, Valparaiso, 1897, III, 433–434.)

Contains (p. 434) one sentence on the linguistic kinship of the Onas with the Tehuelches.

(*e*) Algunos datos sobre la parte austral del continente sud-americano segun estudios hechos por la comision científica sueca. (In *Actes Soc. scient. du Chili*, Santiago, 1897, VII, 157–168.)

Contains (pp. 163–164, 167–168) remarks on the relationship of the Onas with the Tehuelches, and a sympathetic account of Ona mentality. The article is, however, chiefly of importance for the Ona vocabulary of 140 words and phrases on pp. 166–167. This valuable vocabulary was gathered chiefly from Father Beauvoir of the Salesian mission at Rio Grande and from Señor Ramón Cortes, chief of police in Tierra del Fuego Island.

(*f*) Über die Natur der Magellansländer. (In *Peterm. Mitt.*, Gotha, 1897, XLIII, 212–216.)

Contains a few words on the Onas; not important.

(*g*) Expédition suédoise à la Terre de Feu 1895–1897. (In *Annales de géogr.*, Paris, 1897, VI, 347–356.)

Contains (pp. 353–356) somewhat fuller notes on Ona culture and relationship.

(*h*) Från Eldslandet: Skildringar från den svenska expeditionen till Magellansländerna 1895–1897, Stockholm, 1898; résumé et tr. par Charles Rabot, in *Tour du monde*, Paris, 1902, n. s. VIII, 13–60.

Contains Dr. Nordenskjöld's fullest account of the Onas (ch. 6, pp. 104–128; tr., pp. 32–38) and Yahgans (ch. 7, pp. 129–150; tr., pp. 38–39). The data given are good but rather brief. Some good photographs.

(*i*) Svenska expeditionen till Magellansländerna: Wissenschaftliche Ergebnisse der schwedischen Expedition nach den Magellansländern 1895–1897 unter Leitung von Dr. Otto Nordenskjöld, Bd. 1, Geologie, Geographie und Anthropologie, Heft 1, no. 1, Preliminary report, pp. 1–12, no. 2, Ueber die posttertiären Ablagerungen der Magellansländer, pp. 13–80, No. 3, Geological map of the Magellan territories, with explanatory notes, pp. 81–85.

Nordenskjöld, Nils Otto Gustaf—Contd.

Dr. Nordenskjöld's conclusion that since the recession of the glaciers in the Fuegian archipelago the land has risen some 60 meters has a bearing on the question of the length of occupancy of the archipelago by man. Cf. Dr. Lovisato's study of the Elizabeth Island shell-heaps.

(*j*) Die Polarwelt und ihre Nachbarländer, Leipzig-Berlin, 1909.

Contains (pp. 120–129 passim) a few unimportant notes chiefly on the Onas and Yahgans. Dr. Nordenskjöld's anthropological studies were made chiefly upon the Onas, whom he had fairly good opportunities for observing during his trip down the eastern fringe of Tierra del Fuego Island in 1895–96. He was also in communication with the Salesians at Rio Grande, with the Bridges family, and with the civil authorities, especially Señor Ramón Cortes, chief of police for the island. His most important contribution is the Ona vocabulary.

Nyel, J. A. X.

Lettre du Pere Nyel, Missionnaire de la Compagnie de Jesus, au R. P. de la Chaize de la même Compagnie, Confesseur du Roy. (In Lettres édif. et cur., receuil VII, pp. 29–60; 1838–1843 ed., vol. II, pp. 79–83; Span. tr., vol. III; Engl. tr., vol. II; de Brosses, vol. II, 436–441.)

Contains (pp. 36, 42–44) a short account of the Fuegians, chiefly from the Nodals.

Ochsenius, Carl Christian

Chile: Land und Leute, Leipzig-Prag, 1884.

Contains (pp. 111–112, 139–145) unimportant notes on the Fuegians.

O'Halloran, T. P.

A bibliography of South America, London-Buenos Ayres, 1912.

Confined to books and articles in the English language; popular, not scientific; bibliographical data insufficient and in places inaccurate; of some value, however, inasmuch as it is a fairly extensive list.

Olaverria, Miguel de

Informe de Don Miguel de Olaverria sobre el reyno de Chile, sus Indios y sus guerras, 1594 [or 1597–98]. (In Gay, Documentos, II, 13–54.)

Contains (p. 18) very brief notes on the Chonos.

Olivares, Miguel de

Breve noticia de la provincia de la Compañia de Jesus de Chile, desde que los relijiosos de ella entraron en este reino, que fué el año 1593, hasta los años presentes, [1736]. (Ed. with introd. by Diego Barros Arana, in *Col. hist. Chile*, Santiago, 1874, vol. VII, 1901, vol. XXVI.)

Chapter 10 contains a good deal of valuable information on the relations of the missionaries, the colonists, and the Chilotan Indians with the Chonos, together with some notes on Chonoan culture. See especially VII, 370–373 on first missions and culture, and VII, 394–395 on the settlement of the Chonos on Huar. Father Olivares gathered his historical data in the course of his missionary labors in the Chilotan district, and had had some personal contact with the Chonos (VII, 372).

Omalius d'Halloy, Jean Baptiste Julien d'

Des races humaines, ou éléments d'ethnographie, Paris, 1845.

On pp. 162–163 the author classes the Fuegians (Pecherais) in the Araucanian family.

Orbigny, Alcide Dessalines d'

(*a*) Voyage pittoresque dans les deux Amériques, Paris, 1836; ditto, 1841; Ital. tr., 2 vols., Venice, 1852–1854.

Contains (orig., pp. 283–284; tr., I, 557–558) short, unimportant account of the Fuegians, based chiefly on Bougainville, Jas. Cook, Banks.

(*b*) L'homme américain (de l'Amérique Méridional), considéré sous ses rapports physiologiques et moraux, vol. IV, part 1, of the Voyage dans l'Amérique Méridionale etc., Paris, 1839; 2 vols., ibid., 1839.

Contains (see especially pp. 175–177, 185–187) accounts of the Chonos and Fuegians, based on Bougainville, Weddell, the older writers in de Brosses, etc. The accounts would need considerable revision to be of value to-day. The linguistic classification (p. 187) of the Fuegians with the Araucanians is based merely on the occurrence of the syllable *che* in Beauchesne-Gouin's division (gotten, apparently, from La Guilbaudiere or his Description) of the Fuegians into the "Laguediche" and "Haveguediche" (de Brosses, I, 120). Even granting the very doubtful point that the *che* was meant to be pronounced as a separate syllable, Villefort's journal of Beauchesne-Gouin's voyage being written in French, the classification would rest on a quite insufficient basis; yet it was followed by many later writers on Fuegian anthropology (e. g., Figuier, Peschel, Prichard). Average stature of Fuegians (p. 186) based on estimates by Wallis, G. Forster, and Weddell.

Osborn, Chase Salmon

The Andean land (South America), 2 vols., Chicago, 1909.

Contains (I, 68, 159–161) some notes on the Fuegians, based partly on personal observation; not important.

Osborne, Thomas, *ed.*

A collection of voyages and travels, 2 vols., London, 1745.

Contains (ii, 433–478) Fletcher's World encompassed.

O'Sullivan, D. R.

Tierra del Fuego. (In *Fortnightly review*, London, Jan., 1893, lix, n. s. liii, 36–53.)

Contains (pp. 45–53) quite an extensive account of the Fuegian Indians. This account is based on personal observation during a two months' enforced sojourn in the Strait opposite Port Famine and a subsequent cruise through southern and western Fuegia, on information obtained from a German sea captain who had spent 20 years in the archipelago and on Admiral Fitz-Roy's narrative. The description is good, but needs to be used with caution, as the writer does not distinguish sufficiently between the various tribes, and repeats some of Admiral Fitz-Roy's less dependable statements.

Outes, Félix F.

(*a*) La edad de la piedra en Patagonia: Estudio de arqueología comparada. (In *Anales Museo nac.*, Buenos Aires, 1905, 3d ser. v, 203–575.)

A comprehensive description, classification, and discussion of Patagonian stone artifacts, ancient and recent, preceded by a quite full account of earlier Patagonian culture in all its other phases. While this splendid monograph touches only incidentally on the Fuegians (cf. pp. 268–270, 397–398, 412, 427), it is invaluable for the study of the cultural relations of the Fuegians, in particular of the Onas, to the earlier Patagonians.

(*b*) Instrumentos modernos de los Onas. (Ibid., 1906, 3d ser. vi, 287–296.)

An excellent description of some modern Ona implements and arms, showing the substitution of iron and glass for shell and stone. 8 illustrations. 5 Ona words from Mr. Lucas Bridges.

(*c*) Comunicación preliminar sobre los resultados antropológicos de mi primer viaje á Chile. (In La Universidad nac. de La Plata en el IV° Congr. cient. [1° Pan-amer.], Buenos Aires, 1909, pp. 216–221; repr. ibid., 1909.)

An important contribution to Chonoan and Fuegian somatology. Contains (p. 219) the measurements of 2 Chono calvaria, 1 ♂ and 1 ♀, from Puerto Lobos, in the Guaitecas Islands. Dr. Outes also examined 9 Alacaluf (2 men and 7 women) and 14 Onas (3 men and 11 women) at Dawson Island Mission, obtaining stature and cranial measurements and color of skin and iris (pp. 220–221). Dr. Outes promised a fuller study of the 2 Chono calvaria.

(*d*) *and* **Bruch, Carlos**

Outes, Félix F.—Continued

Los aborígenes de la República Argentina, Buenos Aires, 1910.

Contains (pp. 130–141) one of the best, if not the best, extant summarized account of Yahgan and Onan cultural anthropology. 16 excellent photos, illustrating environment, physical types, and artifacts.

(*e*) *and* **Bruch, Carlos**

Cuadros murales "Las viejas razas argentinas," with Texto explicativo, Buenos Aires, 1910.

The charts are intended for school use, the text for the guidance of teachers. The charts and text contain, respectively, nearly the same illustrations enlarged and the same text as "Los aborígenes."

Dr. Outes, in addition to his visit to Fuegia in 1908, has had the opportunity for closely studying an abundance of museum material. It need hardly be added that his works, even those intended for general and school use, are written in accordance with the best anthropological traditions.

Ovalle, Alonso de

Historica relacion del reyno de Chile, y delas misiones y ministerios que exercita en el la Compañia de Jesus, Roma, 1646; repr. in *Col. hist. Chile*, 1888, vols. xii–xiii; Ital. tr., Roma, 1646; Engl. tr. of first five books in Churchill, iii, 1–138, and Pinkerton, xiv, 30–210.

Contains anthropological data from the earlier explorers (bk. 3, ch. 6, pp. 99–101) and a short account of Chonoan culture (bk. 8, ch. 21, pp. 394–395); not important. Map with figure of a Fuegian and the inscription: "Caudati homines hic"!

Oviedo y Valdés, Gonzalo Fernández de

Historia general y natural de las Indias, islas y tierra-firme del mar océano, 4 vols., Madrid, 1851–1855 (1st ed. of bks. 1–19, Seville, 1535, of bk. 20, Valladolid, 1557); extr. in *Col. hist. Chile*, 1901, xxvii, 1–254.

Contains (vol. ii, bk. 20, ch. 1 and 10) references to the fires seen by Magellan's expedition and to the natives met by Loaysa's; not important.

Owen, Richard

Descriptive catalogue of the osteological series contained in the museum of the Royal College of Surgeons of England, vol. ii, Mammalia placentalia, London, 1853.

Contains (pp. 846–848) a short description without measurements of an Alacalufan skull and parts of skeleton which had been presented by Admiral Fitz-Roy.

Pacheco C., Baldomero

(*a*) Derrotero del Estrecho de Magallanes . . . (In *An. hidr. mar. Chile*, Valparaiso, 1907, XXVI, 1–327.)

Contains (pp. 52–55) a few notes on the Channel Alacaluf. Of special interest is the statement on pp. 53–54, "individuos a quienes se ha visto en el puerto Gallant, se les encuentra en seguida en la bahía Fortuna o en el canal Messier." They appear to pass from the Strait to the Patagonian channels, not by doubling C. Tomar, but by a portage route via Jerónimo Canal, Xaultegua Gulf, Perez de Arce Inlet, Gajardo Canal, and Skyring.

(*b*) Apuntes para la jeografía náutica del archipiélago de Reina Adelaida, esplorado por la comision hidrográfica de la canoñera Magallanes en 1904. (Ibid., 1912, XXVIII, 14–57.)

Contains (pp. 26–27) brief notes on the Alacaluf; not important.

(*c*) Derrotero de los archipiélagos de Patagonia desde el golfo de Penas al de los Coronados (Chonos i Chiloé), vol. IV, Valparaiso, 1913.

Contains (IV, 30) the statement that there are no more natives in the Chonos Archipelago.

Pardo C., Caupolican

Armas i utensilios de los indios Patagones i Fueguinos. (In *Actes Soc. scient. du Chili*, Santiago, 1898, VIII, 121–127.)

Contains some descriptive notes on Fuegian artifacts collected by the author on journeys to the southern part of Chile; not important.

Parkinson, Sydney

A journal of a voyage to the South Seas in H. M. S., the *Endeavor*, faithfully transcribed from the papers of the late Sydney Parkinson, draughtsman to Joseph Banks, Esq. on his late expedition with Dr. Solander round the world, London, 1773; with additions, ibid., 1784.

Contains (pp. 7–8) a brief description of the Onas met casually in Jan., 1769, at Good Success Bay. The author accompanied Capt. Cook's first expedition.

Parsons, *Mrs.* Elsie Clews

The family, New York-London, 1906.

Contains passim full data on Yahgan family life, based on Th. Bridges, *a*, and Hyades, *p* and *q*.

Patagonian Channels. (In *Shipping illustrated*, New York, Jan. 10, 1914.) (Reference from *Bull. Pan.-Amer. union*, Washington, Mar., 1914, p. 417.)

Contains, according to the reviewer, an account of the life of the natives.

Payró, Roberto J.

La Australia argentina: Excursión periodística á las costas patagónicas, Tierra del Fuego é isla de los Estados, Buenos Aires, 1898.

A series of articles written by a newspaper man for *La Nación*, of Buenos Aires. Contains (pp. 178–245) quite an extensive account of the Fuegian natives, based on limited personal observation, on data furnished by resident colonists but not submitted to criticism, and on written sources. The description is generally exact, but, as the author remarks, his visit was "una excursión," not "una expedición ní una exploración" (p. 178). The section on Yahgan religion (pp. 184–186) should be used with caution.

Paz, Félix M.

Territorios australes: Expedicion á la bahía de San Sebastian. (In *Bol. Inst. geogr. argent.*, Buenos Aires, Oct., 1886, VII, cuad. 10, pp. 217–219.)

Contains meager notes on the physical appearance and culture of a party of 29 Onas met on the shore of San Sebastian Bay during a very brief visit, Aug. 20–23, 1886, to Tierra del Fuego Island; not important.

Pector, Dêsiré

(*a*) Ethnographie de l'archipel Magellanique. (In *Intern. Arch. f. Ethnogr.*, Leiden, 1892, V, 215–221.)

An excellent summary of the Yahgan cultural data contained in Hyades, *q*.

(*b*) Notes sur l'Américanisme: Quelques-unes de ses lacunes en 1900, Paris, 1900.

Contains a few remarks (pp. 167, 178–179) on the linguistic affinities and culture of the Fuegians; not important.

Penna, José

Araucanos, Pampas, Patagones y Fueguinos: Sus costumbres funerarias. (In *Revista de derecho, hist. y letras*, Buenos Aires, 1909, XXXIV, 171–206.)

Contains an account of Fuegian burial customs and ideas regarding the future life, based chiefly on Fitz-Roy, Darwin, Spegazzini, Bove, Lista. The statements on cannibalism from Fitz-Roy and on Ona cremation from Lista need revision, or at least confirmation.

Pérez García, José

Historia natural, militar, civil y sagrada del reino de Chile, [1810]. (Ed-

Pérez García, José—Continued

ited by José Toribio Medina in *Col. hist. Chile*, Santiago, 1900, XXII–XXIII.)

Contains (XXII, 31–32, 34–35, 109–110) a summary of Father Falkner's division of the natives between Chiloé and the Strait; not important.

Pernety, Antoine J.

See Duclos-Guyot.

Pertuiset, Eugène

Le trésor des Incas à la Terre de Feu, Paris, 1877.

Contains (pp. 172–176, 192–194, 202–205) a few notes on the Onas encountered casually three times by the expedition on a month's trip in Dec., 1873–Jan., 1874, from Gente Grande Bay to Useless Bay. Cf. Marguin. The description of Alacalufan (and Onan?) hunting and fishing customs contained in the account of the Dawson Island natives (pp. 216–222) is more detailed and is based on information given to M. Pertuiset by his agent, M. Léon Moulinier, who spent some months on the island in 1874.

Peschel, Oskar Ferdinand

Völkerkunde, 7th ed., Leipzig, 1897; [1st ed., 1874]; Engl. tr., London, New York, 1876.

Contains (pp. 151–152; tr., pp. 200–202) a few unimportant notes on the Fuegians, based on Snow, Darwin, Fitz-Roy, d'Orbigny.

Phillips, G. W.

The missionary martyr of Tierra del Fuego: being the memoir of J(ames) G(arland) Phillips [with his journal and letters], London, 1861 (reference from British Museum Catalogue); review and summary in *Ausland*, Augsburg, 1861, XLIII, 1009–1012.

The *Ausland* article contains many details on Yahgan character, customs, and physical type, but is hardly important.

Phillips, James Garland

Journal and letters. *See* Phillips, G. W.

Phillips, Philip Lee

A list of books, magazine articles and maps relating to Chile, Washington, 1903.

An extensive bibliography, which does not, however, emphasize the anthropological literature; not annotated.

Pi y Margall, Francisco

Historia de la América antecolombiana, vol. I, 1st part, Barcelona, 1892.

Contains (p. 485) a note on the Chonos, and on pp. 502–509, an extensive account of the Fuegians. The fact that the author bases his description almost exclusively on the older sources—Oviedo, Sarmiento, Argensola, Alcedo, d'Orbigny, the narratives in Purchas, and de Renneville—and ignores the important recent literature detracts seriously from the value of an otherwise carefully written study.

Pickering, Charles

United States exploring expedition during the years 1838, 1839, 1840, 1841, 1842 under the command of Charles Wilkes, U. S. N., vol. IX: The races of man and their geographical distribution, Boston-London, 1848; new ed., London, 1851.

Contains (pp. 17–20; new ed., pp. 8–11) a good though short description of the Yahgans and Onas observed in 1839 at Orange Harbor and Good Success Bay, respectively. Cf. Wilkes, Colvocoresses.

Pietas, Gerónimo

Noticia sobre las costumbres de los Araucanos, 1729. (In Gay, Documentos, I, no. 36, pp. 486–512.)

Contains (pp. 503–504) some interesting data on the culture and language of the "Chonos" and "Caucahues." Father Pietas lived four years in Chiloé (p. 502); he did not travel into Chonoan territory, but had seen one "Caucahue" and many "Chonos," the latter retained by soldiers and other people of Chiloé (pp. 503, 505).

Pigorini, L.

Il museo nazionale preistorico ed etnografico di Roma, 2a relazione al Ministro della Pubblica Istruzione, Roma, 1884, pp. 14–15. (Reference from Hyades.)

A description, according to Dr. Hyades, of the Fuegian collection in the museum.

Pinkerton, John

A general collection of the best and most interesting voyages and travels in all parts of the world, 17 vols., London, 1808–1814.

Contains (vol. XI) an abstract of Capt. Cook's first voyage.

Platz, Bonifacius

Der Mensch, sein Ursprung, seine Rassen und sein Alter, 3d ed., Würzburg-Leipzig, 1898.

Contains many references passim (pp. 55, 68, 79, 96, 100, 137, 199, 323, 338) to the Fuegians; not important.

Platzmann, Karl Julius

Glossar der feuerländischen Sprache, Leipzig, 1882.

Platzmann, Karl Julius—Continued

Contains a fairly extensive vocabulary, Yahgan-German, pp. 1–98, German-Yahgan, pp. 99–226, extracted exclusively from the Rev. Mr. Bridges' Yahgan translation of St. Luke's gospel. The vocabulary is by no means exhaustive. See also Dr. Garbe's criticism. An introduction by Dr. Karl Whistling gives an account of Fuegian anthropology, based on Snow, Darwin, Wilkes, Brassey, Peschel, Virchow; not important. The appendix (pp. 227–266) contains the Bridges Yahgan alphabet, proper names, and English loan-words from St. Luke's gospel, and the parable of the sower and the Our Father in Yahgan. Map, and 3 woodcuts of Fuegian types.

Ploss, Hermann Heinrich

(*a*) Das Kind in Brauch und Sitte der Völker, 3. Aufl., ed. by B. Renz, 2 vols., Leipzig, 1911–12.

Contains references passim to Fuegians; based chiefly on Hyades, *g*, Bridges, *c*, Fred. Cook, *a*.

(*b*) *and* **Bartels, Max**

Das Weib in der Natur- und Völkerkunde, 10. Aufl., ed. by Paul Bartels, 2 vols., Leipzig, 1913.

Contains references passim to Fuegians; based on standard sources.

Poeppig, Eduard Friedrich

Reise in Chile, Peru, und auf dem Amazonenstrome während der Jahre 1827–1832, 2 vols., Leipzig, 1835–36.

The passage (I, 464) on the Chonos is based on Falkner, not on personal observation or original study.

Ponce de Leon, Francisco

Descripcion del reyno de Chile, Madrid, 1644; repr. in full in Medina, *c*, vol. I, 420–434.

Contains (p. 5; Medina, pp. 423–424) a very short account, one of the earliest extant, of the culture of the Chonos.

Popper, Julio

(*a*) Exploración de la Tierra del Fuego. (In *Bol. Inst. geogr. argent.*, Buenos Aires, 1887; VIII, cuad. 4, pp. 74–93, cuad. 5, pp. 97–115.)

Contains (pp. 103–109 and passim) interesting data, chiefly on material culture, gathered from observation of the Onas met casually during a two months' sojourn in Tierra del Fuego Island in 1886.

(*b*) Tierra del Fuego: La vida en el extremo austral del mundo habitado, Buenos Aires, 1890, 119 pp. (Reference from Anrique, pp. 653–654.)

(*c*) Tierra del Fuego: Correspondencia del señor Julio Popper. (In *Bol. Inst. geogr. argent.*, Buenos Aires, 1891, XII, cuad. 1–4, pp. 1–2.)

Contains one paragraph on the Onas; unimportant.

(*d*) Apuntes geográficos, etnológicos, estadísticos é industriales sobre la Tierra del Fuego. (Ibid., cuad. 7–8, pp. 130–170.)

An account of the author's second expedition to Tierra del Fuego Island, during which, he states (p. 162), he established friendly relations with 600 Onas. The paper is of interest to the anthropologist for the sympathetic description of moral culture given incidentally (pp. 136–142) in the author's brief account of the Onas and his defence of their relations with the white settlers.

Señor Popper did not learn the Ona language, but used an interpreter. His cultural data, though not very important, have been confirmed by later explorers. See summary of first expedition by Gunn.

Porter, Cárlos Emilio

(*a*) Sobre la antropología, fauna y flora chilenas: Brevisimas consideraciones. (In Poirier's Chile en 1910, Santiago, 1910, pp. 523–537.)

Contains (p. 525) a few notes on the Fuegians and Chonos; not important.

(*b*) Bibliografía chilena de antropolojía i etnolojía. (In *Bol. Museo nac. de Chile*, Santiago, 1911, III, no. 2, pp. 401–441; reprint; also in Trabajos IV° Congr. cient. [I° Pan-amer.] celebrado en Santiago de Chile, 25 dic. 1908–5 enero, 1909, vol. XIV, Ciencias nat., antrop. y etnol., tomo II, Santiago, 1911, pp. 109–136; an earlier, less extensive list appeared in the *Revista chilena de historia natural*, 1906, X, 101–127.)

An important and extensive bibliography, in part analytical and critical; limited to books and articles published in Chile.

Pretty, Francis

(*a*) The famous voyage of Sir Francis Drake into the South sea, and therehence about the globe of the whole earth, begunne Anno 1577. (In Hakluyt, 2d ed., III, 730–742; Purchas, Pilgrimes, vol. I, bk. 2, ch. 3; Beazley, *b;* Fr. tr. by François de Louvencourt, Paris, 1627 (1st ed., 1613); Dutch tr., van der Aa, vol. XVIII, 2d ed., V; Span. tr. of parts, in *An. hidr. mar. Chile*, Santiago, 1880, vol. VI; de Brosses, I, 178–199; abstr. in E. C. Drake, in Kerr, vol.

Pretty, Francis—Continued

x, in Harris, vol. I, bk. 1, ch. 4, in Laet, bk. 12, Lat. and Fr. tr., bk. 13.)

Contains only a few words on the Fuegians. For fuller details, see Fletcher's World encompassed.

(*b*) The admirable and prosperous voyage of the worshipfull Master Thomas Candish . . . into the South sea, and from thence round about the circumference of the whole earth, begun in the yeere of our Lord 1586, and finished 1588. (In Hakluyt, 2d ed., III, 803–825; Purchas, Pilgrimes, vol. I, bk. 2, ch. 4; Henry, vol. I; Beazley, *a;* Dutch tr., Amsterdam, 1598; Lat. and Germ. tr., de Bry, part 8; de Brosses, I, 220–228; abstr. in E. C. Drake, in Harris, vol. I, in van der Aa, vol. xx, 2d ed., vol. v, in Bancarel, vol. II, in Prévost, vol. xv, in Laet, bk. 12, Lat. and Fr. tr., bk. 13.)

Contains a few very brief and unimportant notes on the natives, probably Alacaluf, met near Elizabeth Bay in 1587.

Prévost, Antoine François (Prévost d'Exiles), *and others.*

Histoire générale des voyages, 25 vols., nouv. ed., La Haye-Amsterdam, 1747–1780[79]; 80 vols., Paris, 1748–1770+.

Contains abstracts of the following voyages: van Noort's, vol. XIV; Cavendish's (from Pretty), de Weert's, van Speilbergen's L'Hermite's, Narbrough's, Wood's, de Gennes' (from Froger), Frezier's, Anson's (from Walter), Bulkeley and Cummins', Alex. Campbell's, vol. xv. Bougainville's description of the Pecherais is given in full, vol. xx, pp. 326–330.

Prichard, Hesketh Vernon Hesketh

Through the heart of Patagonia, London, 1902.

Contains (pp. 107–109) a few unimportant notes on the Onas, apparently not based on personal observation. The author states (p. 7) that the Onas intentionally leave arrow points in a putrid carcass in order to render them poisonous. This statement needs confirmation. All the first-hand authorities who mention the subject deny that the Onas use poison. (Cf. Subject Bibliography, under Weapons, p. 211.)

Prichard, James Cowles

(*a*) Researches into the physical history of mankind, 3d ed., 5 vols., London, 1836–1847.

Contains (v, 494–496) a brief, unimportant account of the Fuegians, based chiefly on Fitz-Roy and Wilkes.

Prichard, James Cowles—Continued

(*b*) The natural history of man, 3d ed., London, 1848; Fr. tr., 2 vols., Paris, 1843.

Contains (pp. 445–450; tr., II, 197–203) an account of the Alacaluf (Pesherais); not important.

Prince, Carlos

Idiomas y dialectos indígenas del continente hispano sud-americano, Lima, 1905.

The sections on the Chonos and Fuegians (pp. 83–86, 125–126) are unreliable.

Purchas, Samuel

(*a*) Pvrchas his Pilgrimage, London, 1613 (the fourth ed. usually published as vol. I or v of Hakluytus Posthumus).

Contains (bk. 9, ch. 6–7, pp. 711–717) an interesting though not important description of the southern end of South America, based on the earliest voyages.

(*b*) Hakluytus Posthumus or Pvrchas his Pilgrimes, 5 vols. (vol. v being the Pilgrimage), London, 1625; repr. Hakl. soc., 20 vols., Glasgow, 1905–1907.

Contains the following voyages: Drake's and Cavendish's (by Pretty, repr. from Hakluyt), van Noort's, van Speilbergen's, vol. I; Hawkins', Cavendish's (by Knivet), vol. IV.

Purves, David Laing, *ed.*

The English circumnavigators, London, 1874.

Contains (pp. 33–98) Fletcher's World encompassed, and (pp. 319–474) Walter's narrative of Anson's voyage.

Quatrefages de Bréau, Jean Louis Armand de

(*a*) *and* **Hamy, Jules Théodore Ernest.** Crania ethnica: Les crânes des races humaines, vol. I, text, vol. II, plates, Paris, 1882.

Contains the description and measurements (I, 478–479) of 2 ♂ Alacaluf skulls, one from Mercy Harbor, Desolation Island, collected by M. de Rochas, the other from Punta Arenas, previously described by Dr. Rey. The Mercy Harbor skull is reproduced in II, plate LXXV, figures 3–4; figures 433–437 in text are taken from Huxley.

(*b*) Histoire générale des races humaines, Paris, 1889.

Contains (pp. 545, 599) notes on the resemblance of the Fuegian to the Lagoa Santa cranial type.

Raggi, G. A.

Attraverso l'America meridionale, Milano, [1897].

Contains (pp. 38–65 passim) considerable material on Yahgan and Onan culture, based on

Raggi, G. A.—Continued

personal observation, on hearsay, and on information given by Señor Ramón Cortes, chief of police in Tierra del Fuego; not important.

Ramusio, Giovanni Battista, *ed.*

Navigationi et viaggi . . . 3 vols. Venetia, 1550–.

Contains (I, 374–379) the Epistle of Maximilianus Transylvanus.

Ranke, Johannes

Der Mensch, 2d ed., 2 vols., Leipzig-Wien, 1894–1900; 3d ed., 2 vols., ibid., 1911–12.

Contains (2d ed., II, 345–354) a lengthy account of Fuegian somatology and culture, based on Virchow and R. Martin. In the third edition (II, 292–300) a few notes from O. Nordenskjöld bring the account a little more up to date, but even so it leaves much to be desired.

Ratzel, Friedrich

(*a*) Anthropo-geographie, Stuttgart, 1882; 2d ed., 2 vols., ibid., 1899–.

Contains passim some references, more numerous in the second edition, to the influence of environment on Fuegian culture.

(*b*) Völkerkunde, 2d ed., 2 vols., Leipzig-Wien, 1894–95; Engl. tr. of 2d ed. by A. J. Butler, 3 vols., London-New York, 1896–1898.

Contains (I, 518–525; tr., II, 84–91) an extensive and good account mainly of Yahgan and Alacalufan culture, based chiefly on Fitz-Roy, Darwin, Coppinger, Lovisato, Bove, Hyades. The author gives only a few stray points on the Onas. He follows Admiral Fitz-Roy in calling the natives of the Patagonian channels Chonos. 6 woodcuts; see especially illustration of ax (I, p. 522; tr., II, p. 88).

Real, Julian

See Benito Marin.

Reclus, Jean Jacques Élisée

Nouvelle géographie universelle: La terre et les hommes, 19 vols., Paris, 1876–1894; Engl. tr., 19 vols., London, 1876–1894, and New York, 1886(?)–1898.

Contains (XVIII, 762–767; tr. pp. 445–447) a very brief account of the Fuegians; accurate, except for stature measurements, given as average 4 feet 6 inches. A few words on Chonos (tr., p. 444).

Regalia, Ettore

See Mantegazza.

Reiss, Johann Wilhelm

See Stübel.

Rejistro de la marina de la República de Chile, 1848, p. 44. (Reference from Medina's Aboríjenes, p. 111.)

Quoted (ibid.) to the effect that the Fuegians extend as far north as the Chonos Archipelago.

Renneville, René Augustin Constantin de

Recueil des voyages qui ont servi a l'établissement et aux progrés de la Compagnie des Indes Orientales, formée dans les Provinces Unies des Païs-Bas, 5 vols., Amsterdam, 1702–1706; 2d ed. rev. and enl., 7 vols., ibid., 1725; 10 vols., Rouen, 1725.

Contains French translations from Commelin of the voyages of de Weert and de Cordes, van Noort, van Speilbergen, L'Hermite (vols. I, II, IV, V, respectively; 2d ed., Amsterdam, vols. I, II, IV, V; Rouen ed., vols. II, III, VIII, IX).

Rey, Philippe Marius

Étude anthropologique sur les Botocudos: Thèse pour le doctorat en médecine, faculté de médecine de Paris, Paris, 1880.

Contains (pp. 48–52) the description and measurements of a skull collected at Punta Arenas. It was presented by M. Lejanne as Patagonian, but according to Dr. Francisco Moreno it is Fuegian. Figures 8–10. Cf. de Quatrefages, *a*.

Reynaud, P. H.

(*a*) Rapport médical sur la campagne de l'aviso le L'Hermitte. (In *Arch. de medecine navale*, Paris, 1876, XXVI, 81–104, 161–190, 241–251.)

Contains (pp. 91–94) a very good description of Channel Alacaluf met casually at Isthmus Bay in Oct., 1873.

(*b*) Notes sur les Fuéghiens. (In *Revue d'anthrop.*, Paris, 1878, vol. VII, 2d ser. I, 323–324.)

Contains practically the same cultural data as the preceding article.

Rhoades, Henry Eckford

Around the world with the blue jackets, Boston, 1890.

Contains (pp. 232–236) a description of some Alacaluf met near Punta Arenas.

Ringrose, Basil

The dangerous voyage and bold attempts of Captain Bartholomew Sharp, and others; performed upon the coasts of the South Seas, for the space of two years, &c. (In Exquemelin, Bucaniers of America, 2d Engl. ed., 2 vols., London, 1684–85, vol. II; for repr. and Fr. and Germ. tr., see Hacke, Dampier; Harris, vol. II, bk. 4, ch. 6; extr. in de Brosses, II, 43–48, and in Fitz-Roy, *b*, pp. 172–175.)

Contains (ch. 23) very meager notes on a family of Channel Alacaluf met in Oct., 1681,

Ringrose, Basil—Continued

near Duke of York Island between 50° and 51° south lat. (Madre de Dios Island, according to Admiral Fitz-Roy, *b*, p. 174).

Rivet, Paul

La race de Lagoa-Santa chez les populations précolombiennes de l'Équateur. (In *Bull. et mém. Soc. d'anthr. de Paris*, 1908, 5th ser., vol. IX, fasc. 2, pp. 209–271; also separate reprint.)

Contains some important material on the somatological relations of the Fuegians. See especially pp. 241, 253–258, 264–268. Dr. Rivet's conclusions are: The Yahgans and Alacaluf are fundamentally identical with the Lagoa Santa race, although there has been an infusion of some other element; the Onas are apparently of mixed Tehuelche and Yahgan-Alacaluf blood. Dr. Rivet restudied the three Ona skulls at Paris which Dr. Hultkrantz described (*b*).

Rivière, E.

L'expédition scientifique du cap Horn et son exposition. (In *Revue scientifique*, Paris, 1884, XXXIII, 3d ser. VII, 385–400.)

Contains (pp. 397–400) a brief account of the Yahgans, based on information given by Drs. Hahn and Hyades.

Robiano, Eugène de

Le Chili, l'Araucanie, le détroit de Magellan et retour par le Sénégal, Paris, 1882.

Contains (pp. 241–243) an unimportant account of the Fuegians, based on written sources.

Rochas, V. de

Journal d'un voyage au détroit de Magellan et dans les canaux latéraux de la côte occidentale de la Patagonie 1856–1859. (In *Tour du monde*, Paris, 1er sem., 1861, III, 209–236; résumé by Simonot.)

Contains (pp. 216–218, 223–224, 226, 235–236) unimportant descriptions of Alacaluf met casually at St. Nicholas and Level Bays in July-Aug., 1856 [and Dec., 1859].

Rogers, Woodes

A cruising voyage round the world . . . begun in 1708 and finish'd in 1711, London, 1712; 2d ed., ibid., 1726.

Contains (pp. 109–121 passim in both editions) a few unimportant notes on the Fuegians, based entirely, it seems, on earlier written sources.

Rosales, Diego de

(*a*) Historia general de el reyno de Chile, 1674–, ed. by Benjamin Vicuña Mackenna, 3 vols., Valparaiso, 1877–78.

Contains passim a good deal of valuable material on Chonoan culture. See I, 33, 105, 151, 157, 173–176, 293, 305, and II, 144. The section on navigation (pp. 173–176) is especially good. Cf. also the accounts of the Ulloa expedition in 1553 (I, 33–34, 474) and of the 1641 expedition, which Father Jerónimo de Montemayor accompanied (I, 105–106).

The latter expedition went by sea toward the province of Allana and encountered some Indians. The exact place is hard to identify. Father Rosales mentions in connection with the meeting the "P. de los Pabellones" and the province of "Pucaqui." I have been unable to locate any of the above geographical names on any of the accessible early maps of the southern archipelagos and could obtain only fragmentary data from written sources. Ascasubi says (pp. 315–316) that the mission of the Chonos founded by Father Venegas is composed of "varias parcialidades de indios que se descubrieron en Guaitecas, Chauranmapú y Alana, islas que demoran al sur de Chiloe, en la altura de 45g^{s}." Moraleda identifies Chayamapu with Aisen Inlet and says that it is the name the natives call the islands and mainland east of Moraleda Channel to distinguish this district from the Guaitecas Archipelago to the west (pp. 323, 332). If, therefore, Chayamapu was a district and not an island and extended much beyond the Guaitecas Islands, Ascasubi must have been writing inaccurately or else had in mind the whole southern archipelagos; and Alana, too, may have been an island or district much farther south than the Guaitecas Islands. Moreover, as he includes Cailin and Chaulinec in the Chonos mission it is possible that Alana meant the Gulf of Peñas region, from which many of the natives at Cailin and Chaulinec in the second half of the eighteenth century had been brought.

It is just in this region that de Vea appears to put the "tierra de allana." Coming down from the Isthmus of Ofqui he came upon an island, now S. Xavier Island, in the eastern part of the Gulf of Peñas near the mainland, "que le puse por nombre San Estéban, que corre N.-S., con la tierra de allana y la tierra firme de barlovento" (p. 573).

Finally, Gallardo i Andrade seems to call the island of S. Xavier by the name of Pucaqui (p. 532; cf. also Machado, p. 65. A "River of the Giants" is marked on some of the maps posterior to 1641 as situated well south of Taitao Peninsula).

The above evidence is not very convincing proof of anything, but what there is seems to be convergent enough to establish a good presumption that the 1641 expedition encountered the Indians mentioned above in the Gulf of Peñas region. These natives were reported to be of gigantic stature and to have fought with clubs and stones. They were nicknamed "Gabiotas," that is, "gulls," by the members of the expedition, on account of a fancied resemblance of their

Rosales, Diego de—Continued

strange speech to the call of this bird. As the Araucanian name for gull is "caucau" (Rosales, I, 310), it is very likely that the name "Caucaus," "Caucahues," etc., which occurs so frequently in works later than 1641 but not earlier to denote the Chonos had its origin in this way.

(*b*) Conquista espiritual del reino de Chile. MS. (Fragments only are extant. Cf. preceding work, vol. I, Introd., pp. xxxiv–xxxv.)

Valuable data from this manuscript, bearing on Chonoan culture, are given in Dr. Medina's Aborijenes on pp. 94–95, 103, 162, 178, 186.

Father Rosales was in Chiloé in 1662 and probably derived his information on Chonoan culture from direct observation or from good first-hand sources.

In the Introduction and Subject Bibliography the present writer has referred to the data concerning Father Rosales' "Gabiotas" as Chonoan. This has been done with considerable reserve, for although from the circumstances of the case it seems more probable that the Gabiotas were Chonos, it is by no means certain.

Ross, James Clark

A voyage of discovery and research in the southern and antarctic regions during the years 1839–1843, 2 vols., London, 1847.

Contains (II, 284–285, 303–307) an excellent account of the culture of the Yahgans who made "frequent visits" to Capt. Ross and his party during the expedition's sojourn at Martin's Cove in Sept.-Oct., 1842. Cf. also M'Cormick.

Roth, Henry Ling

Tatu in Tierra del Fuego. (In *Man*, London, 1905, v, no. 90, pp. 161–163.)

A discussion of a passage in Parkinson's Journal, p. 8, perhaps showing the existence of tattooing among the Onas, probably Mánekenkn, met in Jan., 1769, at Good Success Bay on Capt. Cook's first expedition. The passage and illustrations are far from decisive proofs of the point. The illustration may well represent mere stippling, a common style of face painting among the modern Fuegians. Again no mention is made of tattooing by either Capt. Cook or Dr. Banks, who describe, the latter in considerable detail, the same natives whom Dr. Parkinson saw. It may be added that the modern Onas tattoo the arm, not the face. See also the uncertainties in the evidence, which Dr. Roth himself suggests. Figures 1–3 in text.

Roussel, A.

(*a*) Les Fuégiens, leurs moeurs et leur langage au XVIIme siècle. (In *Revue de Fribourg*, Dec., 1909, 14 pp.) (Reference from *Geogr. jour.*, London, 1914, XLIII, no. 5, p. 595.)

Roussel, A.—Continued

(*b*) Le langage des Fuégiens. (In *Muséon*, Louvain, 1910, n. s. xi, 135–140.)

Contains an Alacalufan vocabulary, that is pretty surely a copy of La Guilbaudiere's, from the MS. journal of an officer of Beauchesne-Gouin's fleet. Less accurate than the original.

Rousson

(*a*) *and* **Willems**

Missĭon scientifique de Mm. Rousson et Willems à la Terre de Feu. (In *C. R. Soc. de géogr.*, Paris, 1891, nos. 7–8, pp. 176–183; Span. tr. in *Bol. Inst. geogr. argent.*, Buenos Aires, 1891, XII, 2–9.)

Contains (pp. 180–181; tr., pp. 6–9 a succinct account of the culture of the northern Onas.

(*b*) *and* **Willems**

La Terre de Feu et ses habitants. (In *C. R. Assoc. française pour l'avancement des sciences*, 21st sess., held at Pau, 1892, Paris, 1893, 2d part, pp. 961–965.)

Contains (pp. 963–965) the same cultural data as the preceding article.

MM. Rousson and Willems traveled for over two months in 1890 through the northern part of Tierra del Fuego Island, and for four months in 1891 through the southern part, during which time they had a fair amount of contact with the Onas. They were charged by Señor Adolfo Poleró Escamilla with plagiarizing from Señor Popper's 1887 article; the Instituto Geográfico Argentino after investigation sustained the charge (*Bol. Inst. geogr. argent.*, 1891, XII, 118–119). Regardless, however, of the source whence drawn, their cultural data are in the main accurate, even though not so important. *See also* Willems.

Sabin, Joseph

A dictionary of books relating to America from its discovery to the present time, vols. I–XX, New York, 1868–1892.

Contains important bibliographical data concerning many of the sources for Fuegian anthropology.

Salesian bulletin

See Bollettino salesiano, Cojazzi.

Sarmiento de Gambóa, Pedro

Viage al estrecho de Magallanes por el Capitan Pedro Sarmiento de Gambóa en los años de 1579. y 1580. y noticia de la expedicion que despues hizo para poblarle, ed. by Bernardo [de] Iriarte, Madrid, 1768; repr. in *An. hidr. mar. Chile*, Santiago, 1881, VII, 413–542; Engl. tr. by Sir Clements Markham,

Sarmiento de Gambóa, Pedro—Contd.

Hakl. soc., vol. XCI, London, 1895. Cf. Hernandez.

Contains numerous notes passim (pp. 81, 91, 109–111, 120, 122–123, 191–193, 196–198, 209–212, 228–229; *An. hidr.*, pp. 422, 428, 439, 445–447, 487–488, 497–498, 511) on the culture of the natives, all probably Alacaluf, of different points between Concepcion Strait and the modern Punta Arenas region, and a few details (pp. 244–246; *An. hidr.*, pp. 519–520) on the Onas of Gente Grande Bay. Ten native localnames (pp. 203–210 passim; *An. hidr.*, pp. 493–497) gathered from some Indians taken aboard seemingly at Tuesday Bay, Desolation Island. Sarmiento had considerable contact with the natives in 1579–1580, but his reports of their culture are rather meager. His most interesting data are: Cave burial (p. 120; *An. hidr.*, 445); the local names, vaguely suggestive at least of the Alacaluf language; and the description of the Onas, the earliest extant account of this tribe.

The fabulous details found in Argensola's account (q. v.) of Sarmiento's voyage are absent from the original narrative.

Schlesinger, Georg

[Account of Fuegians encountered while aboard the *Junon* Oct., 1878, between English Reach and Isthmus Bay.] (In *Verh. Berlin. Ges. f. Anthr. u. s. w.*, Nov. 14, 1881, pp. [393]–394.)

Contains some brief notes on the Alacaluf met casually three times; not important.

Schmidt, Emil

Catalog der im anatomischen Institut der Universität Leipzig aufgestellten craniologischen Sammlung. (In *Die anthrop. Sammlungen Deutschlands: Privat-Sammlungen*, I, 1886.)

Contains (pp. 168–169) the description and measurements of the skulls of a Payo man and a half-breed Payo woman. The Payos of southern Chiloé are suspected of having Chonoan blood in them.

Schmidt, Wilhelm

(*a*) L'origine de l'idée de Dieu, vol. I, Paris, 1910, repr. from *Anthropos*, 1908–1910, vols. III–V; Germ. tr. rev. and enl., vol. I, Münster i. W., 1912.

Contains (p. 103; tr., p. 145) a paragraph on the Fuegian "supreme Deity," based on Lang.

(*b*) *and* **Hestermann, Ferdinand**

Völker und Kulturen. (In Mensch aller Zeiten, 3 vols., Berlin-München-Wien, 1911–, vol. III, 1914–.)

Contains (pp. 112–127) a review of the evidence for the application of the Kulturkreis theory to America, especially South America. See in particular the section on pp. 115–117 dealing with the Fuegians. Father Schmidt agrees in the main with Dr. Graebner.

Schuller, Rodolfo R.

Bibliography of Spanish America. MSS.

Consists of about 7,000 titles covering history, geography, languages, etc.; not, however, as important for Fuegia as for the rest of the continent. It was acquired by the Library of Congress, Washington, D. C., June 17, 1913.

Extensive additions to the above bibliography were later acquired by the Library of Congress and are listed under the entry "Collectanea bibliographica americana, 1915."

Second voyage round the world in the years 1772, 3, 4, 5, by James Cook, Esq. . . . drawn up from authentic papers, London, 1776.

An apocryphal account of Capt. Cook's second voyage.

Seelstrang, Arturo

Apuntes históricos sobre la Patagonia y la Tierra del Fuego. (In *Bol. Inst. geogr. argent.*, Buenos Aires, 1879–1882, 1884–85, vols. I–III, V–VI.)

An excellent history of the first century and a half of Magellanic exploration. The writer keeps close to the original documents, from which he paraphrases or quotes verbatim a great part of the anthropological material.

Segers, Polidoro A.

Hábitos y costumbres de los indios Aonas. (In *Bol. Inst. geogr. argent.*, Buenos Aires, 1891, XII, cuad. 5–6, pp. 56–82.)

An important paper on Ona culture and to a lesser extent on Ona language. Its publication may be said to have marked an epoch in the study of the Onas, and though more ample material has since appeared, Dr. Segers' article still remains a valuable original source, especially on Onan culture. The author accompanied the Lista expedition in 1886 and later spent three years in Tierra del Fuego as a naval surgeon. His cultural data have been verified by later explorers, except his division (p. 81) of the Onas into six tribes, the names he gives being, according to Mr. Lucas Bridges (Lehmann-Nitsche, *d*, p. 233), merely local names. A larger Ona dictionary compiled by Dr. Segers was unfortunately lost in a shipwreck. The present article contains a few notes on word composition, a vocabulary of 91 words on pp. 80–81 and several additional words on pp. 69, 70, 77–79. The vocabulary is, according to Mr. Lucas Bridges (Lehmann-Nitsche, *d*, p. 237), "lleno de errores y con muchas voces yagán." Ten at least of the words seem to be Mánekenkn rather than Shílk'nam.

Seggel

Ueber die Augen der Feuerländer und das Sehen der Naturvölker im Verhaltniss zu dem der Kulturvölker. (In *Arch. f. Anthr.*, Braunschweig, 1882–83, XIV, 349–356.)

Contains a study of the eyes and eyesight of Grethe or Anne, one of the Hagenbeck group of Alacaluf exhibited in Europe.

Seitz, Johannes

(*a*) Ueber die Feuerländer. (In Virchow's *Arch. f. path. Anat. u. Physiol. u. f. klin. Medicin*, Berlin, 1883, XCI, 9th ser. I, 154–189, 346–349.)

Contains the following: Important account of the last illness, death and post-mortem examination of two men and three women of the Hagenbeck group of Alacaluf exhibited in Europe; further data, chiefly pathological; some remarks of little value on culture; an Alacaluf vocabulary (p. 184) of 18 words gathered by signs with much difficulty. A fair percentage of these words seem to be more or less approximately correct.

(*b*) Zwei Feuerländer-Gehirne. (In *Zeitschr. f. Ethnol.*, Berlin, 1886, XVIII, 237–284.)

A valuable paper on the subject. Plates VII–VIII.

Semple, Ellen Churchill

Influences of geographic environment, on the basis of Ratzel's system of anthropo-geography, New York, 1911.

Contains passim some interesting inferences on the Fuegians. On p. 465 Admiral Fitz-Roy's views on Fuegian cannibalism are quoted without comment.

Señoret, Manuel

Memoria del Gobernador de Magallanes: La Tierra del Fuego i sus naturales, Santiago de Chile, 1896, 44 pp.; also in Diario oficial de abril de 1896, núm. 5395. (Reference from Anrique, p. 466.)

This paper is sometimes quoted and drawn upon, especially by Señor Cañas P. (q. v.) and Dr. Cojazzi. It is probably important, but I was unable either to consult or to purchase a copy.

Sera, G. Leo

L'altezza del cranio in America. (In *Arch. per l'antrop. e l'etnol.*, Firenze, 1912, XLII, 64–124, 161–251, 297–329; 1913, XLIII, 13–88.)

A comprehensive monograph on the subject. Pp. 182–192 passim and especially pp. 185–186 give the Chonoan data, pp. 192–205 the Fuegian. Bibliographies.

Sergi, Giuseppe

(*a*) Antropologia fisica della Fuegia. (In *Atti Reale accad. medica di Roma*, 1886–87, XIII, 2d ser. III, 33–70.)

An important study in two parts: the first a résumé of the previously published sources on Fuegian somatology, the second the author's own description and measurements of the osteological remains brought back by Capt. Bove from the 1884 expedition and consisting of 13 complete adult skeletons and the skull of an infant. Of the skeletons 5 were ♂ and 8 ♀, and, according to Capt. Bove, 11 were Yahgan. See summary of paper by Marchiafava and Carruccio. 3 plates.

(*b*) Antropologia fisica della Fuegia (Nuove osservazioni). (In *Bull. Reale accad. medica di Roma*, 1887–88, XIV, 52–62; also in *Arch. per l'antrop. e l'etnol.*, Firenze, 1888, XVIII, fasc. 1, pp. 25–32.)

A complement to the preceding paper, giving the description and measurements of a complete Fuegian skeleton, presented by Prof. L. Pigorini, who had received it from Dr. Dall' Orto, a resident of Colonia del Sacramento, in Uruguay. This skeleton is Yahgan, according to Dr. Sergi.

(*c*) Crani africani e crani americani. (In *Arch. per l'antrop. e l'etnol.*, Firenze, 1891, XXI, fasc. 2, pp. 215–268.)

This article includes passim some of the measurements from the two preceding papers.

Serrano Montaner, Ramón

(*a*) Diario de la excursión á la isla grande de la Tierra del Fuego durante los meses de enero i febrero de 1879. (In *An. hidr. mar. Chile*, Santiago, 1880, VI, 151–204.)

Contains passim, especially on pp. 157–158, 162–169, some short notes on the Onas met casually. These notes, while not important, are interesting, inasmuch as the writer was one of the pioneer explorers of Ona territory.

(*b*) Reconocimiento del rio Buta-Palena i del canal Fallos. (Ibid., 1886, XI, 73–176.)

Contains (pp. 151, 153–154) very brief notes on two canoe loads of natives met casually in Cortés Ojea and Messier Channels.

Sharp, Bartholomew. 1681

See Ringrose.

Shufeldt, Robert Wilson

Studien über die Feuerländer. (Tr. by L. J. Brühl in *Mutter Erde*, Berlin-

Shufeldt, Robert Wilson—Continued

Stuttgart, 1900, II, no. 23, pp. 441–444, 464–467.)

A summary, chiefly of Yahgan culture, based on Darwin, Bove, Hyades.

Siemiradzki, Josef von

(*a*) Beiträge zur Ethnographie der südamerikanischen Indianer. (In *Mitt. Anthr. Ges.*, Wien, 1898, XXVIII, n. s. XVIII, 127–170.)

Contains (pp. 128–129, 134) suggestions regarding the kinship and cultural relations of the Fuegians to other South American aborigines.

(*b*) Mieszkańcy Ziemi Ogniowej. [Die Völkerstämme des Feuerlandes.] (In *Wszechświat*, Warschau, XIII, 81–83.) (Reference from P. L. Phillips, p. 72.)

Sievers, Wilhelm

Süd- und Mittelamerika, 2d ed., Leipzig-Wien, 1903.

Contains a few data on the Fuegian tribes See pp. 87, 327–329, 366. Not important; some inaccuracies, especially in the account of the Onas.

Silva A., L. Ignacio

See Anrique.

Simonot

Sur la relation d'un voyage de M. de Rochas aux terres magellaniques et à l'île Rossel. (In *Bull. Soc. d'anthr. de Paris*, 1862, III, 118–133.)

A résumé of M. de Rochas' account, followed by a discussion (pp. 133–138) by MM. Broca, de Quatrefages, Gosse, d'Avezac, Simonot, Pruner-Bey; no important conclusions reached.

Simpson, Enrique M.

Exploraciones hechas por la corbeta *Chacabuco* en los archipiélagos de Guaitecas, Chonos i Taitao. (In *An. hidr. mar. Chile*, Santiago, 1875, I, 3–166.)

Contains (pp. 18, 43, 114) a few notes on the Chonos. The writer found no Chonos in the three archipelagos, except one family in the Guaitecas Islands. The "vocabulario Payo i antiguo Chono" given on p. 104 is Araucanian.

Simpson, Juan M., *and* **Chaigneau, J. Federico**

(*a*) Estudio de la parte oriental de las aguas de Skyring por los tenientes . . . en octubre i noviembre de 1877. (In *An. hidr. mar. Chile*, Santiago, 1879, V, 47–56.)

Contains (p. 51) a statement that they saw a bark canoe at Lorca Cove in Skyring Water, but no natives.

Simpson, Juan M., *and* **Chaigneau, J. Federico**—Continued

(*b*) Diario llevado por los tenientes Simpson i Chaigneau. (Ibid., 1880, VI, 73–96.)

Contains (pp. 86–88) a few notes on the material culture of some natives met near Mt. Dynevor in Skyring Water on Feb. 8, 1879. Of special interest is the short vocabulary (p. 88) of 18 words and the first 8 numerals taken by signs from one of the natives who seemed to be more intelligent than the rest. About one-half of the 18 words can be identified as clearly Alacalufan.

Skottsberg, Carl Johan Fredrik

(*a*) The Swedish Magellanian expedition, 1907–1909: Preliminary reports. (In *Geogr. jour.*, London, 1908, XXXI, 640–645, XXXII, 485–488, 591–594, 1909, XXXIII, 289–294, XXXIV, 409–421.)

The anthropological results (XXXII, 591–594) are given much more fully in the three following studies.

(*b*) Einige Beobachtungen über die Eingeborenen Westpatagoniens nach Studien während der schwedischen Expedition 1907–1909. (In *Ymer*, Stockholm, 1910, XXX, 240–274.)

An important article on the somatology and culture of the West Patagonian Channel Alacaluf. Dr. Skottsberg gives, in addition to extensive cultural data gathered at first-hand, the measurements of 6 men and 5 women (pp. 250–256). The account on pp. 270–273 of the Gulf of Peñas natives is based on information given by a certain Capt. Steele, a sailing boat master, met in the vicinity of the Gulf. Dr. Skottsberg's criticism thereupon seems in the main to be well sustained, but further investigation of these natives themselves would be most desirable. The Skottsberg expedition encountered none north of Port Grappler. Eighteen good photographs and cuts in text.

(*c*) The wilds of Patagonia: A narrative of the Swedish expedition to Patagonia, Tierra del Fuego and the Falkland Islands in 1907–1909, London, 1911.

Contains (pp. 91–103) approximately the same cultural material as the *Ymer* article, but lacks the Steele narrative and the anthropometrical data, and is written with less detail, as the book is intended for the general reader. There are also some slight references (especially pp. 35, 306–308) to the other Fuegian tribes. Many good photographs and cuts.

(*d*) Observations on the natives of the Patagonian Channel region. (In *Amer. anthr.*, 1913, n. s. XV, no. 4, pp. 578–616.)

An important contribution to Fuegian linguistics. This article contains the same cultural

Skottsberg, Carl Johan Fredrik—Contd.

material as the *Ymer* paper does, with the omission, however, of the Steele account and the anthropometrical data; but Dr. Skottsberg publishes here for the first time an extensive vocabulary of about 285 words with 16 sentences (pp. 606–611) taken from the language of the Channel natives. There follows (pp. 611–614) an interesting discussion of the relations of this vocabulary to the Alacaluf lists given by Admiral Fitz-Roy and Dr. Hyades. On p. 615 there are a few notes on the Haush. Ethnological map and 18 good photographs and cuts.

(*e*) Some additional notes on the language of the natives in the Patagonian channels. (Ibid., 1915, n. s. XVII, no. 2, pp. 411–413.)

A comparison of his own with Dr. Coppinger's vocabulary, an added note on the Fitz-Roy list and some corrections of misprints in the preceding article.

Dr. Skottsberg's papers, which constitute the most important recent study of the little-known canoe-using natives of the Patagonian channels, are based on very careful and exact though somewhat limited personal observation. The expedition spent about a month in May–June, 1908, between Port Gallant and the Gulf of Peñas, encountering natives several times, none, however, north of Port Grappler.

The linguistic material was gathered chiefly from a native woman, Emilia, living at Port Gallant, who spoke a little Spanish and who accompanied the expedition for a month as interpreter. Some aid was also given by the natives at Port Gallant and Port Bueno and to a minimal extent by those of Port Grappler. The author's vocabulary agrees very closely with Father Borgatello's. Dr. Skottsberg in his comparative study unfortunately neglects a greater part of the important Alacalufan linguistic material. While his conclusion that his vocabulary represents a fourth Fuegian language can hardly be accepted, yet he has done Fuegian anthropology a great service in showing that the Alacalufan language is spoken as far north at least as Port Grappler, and probably as the Gulf of Peñas. This in turn, with the other evidence from older sources, makes it not at all improbable that the Chonos themselves may have spoken an Alacalufan dialect. For fuller discussion of this whole subject, see Introduction to present bibliography.

It may be added that Dr. Skottsberg had had a certain amount of contact with the Onas and Yahgans of Beagle Channel in 1902 as a member of the Swedish Antarctic Expedition of 1901–1903.

Skyring, W. G.

Extracts from journal. (In King passim.)

Contain (pp. 267, 342–345) a few notes on natives met in Neesham Bay and Sarmiento and Messier Channels. Lieut. Skyring was assistant surveyor and, from Aug. to Dec., 1828, commander of the *Beagle* during the first expedition.

Slocum, Joshua

(*a*) Sailing alone around the world. (In *Century mag.*, New York, 1899, LVIII, n. s. XXXVI, 938–953, 1900, LIX, n. s. XXXVII, 134–148.)

Contains passim unimportant accounts of unfriendly encounters with the Alacaluf in the western part of the Strait.

(*b*) Around the world in the sloop *Spray*, New York, 1903.

Contains same data passim in ch. 7–9.

Smith, W. G. Rae

A visit to Patagonia. (In *Scottish geogr. mag.*, Edinburgh, 1912, XXVIII, no. 9, pp. 456–475.)

Contains (p. 461) three short paragraphs on the Fuegians; not important. The author did not get farther south than Punta Arenas.

Snow, William Parker

(*a*) A two years' cruise off Tierra del Fuego, the Falkland Islands, Patagonia and in the River Plate, 2 vols., London, 1857.

Contains rather important data on the culture of the natives met at Picton Island, Lennox Cove, Beagle Channel, and Woolya, all apparently Yahgans. See especially the long account of the Picton Island natives (I, 324–352), including 5 words of uncertain signification (pp. 326–327, 340) and stature measurements of 2 men (p. 346). Other data passim in vol. I, ch. 22–25, and vol. II, ch. 26–29.

(*b*) A few remarks on the wild tribes of Tierra del Fuego from personal observation. (In *Trans. Ethnol. soc.*, London, 1861, n. s. I, 261–267.)

A more orderly summary of the cultural data scattered through the preceding work.

(*c*) A cruise among the Fuegians. (In *Harper's new monthly mag.*, New York, Jan., 1864, XXVIII, 160–167.)

Contains approximately the same cultural data as the preceding. This article was published anonymously, but was evidently written by Capt. Snow.

Capt. Snow had a good deal of contact with the Yahgans during his stay in their territory in 1855. His account is sympathetic and seems to be careful and exact as far as it goes.

Sobron, Félix C. Y.

Los idiomas de la América latina, Madrid, [1875].

The section on the Fuegians (pp. 82–84) is based on Fitz-Roy exclusively and is very loosely written; not important.

Sokolowsky, Alexander

Menschenkunde, 3d ed., Stuttgart-Berlin-Leipzig, [1901].

Contains (pp. 129–133 and passim) a fairly good account of the Fuegian natives. A clearer distinction between the three tribes would have been desirable.

Somló, Felix

Der Güterverkehr in der Urgesellschaft, Bruxelles-Leipzig, 1909.

Contains (pp. 83–90) an excellent and fairly exhaustive treatment of this phase of Yahgan and Alacalufan culture, based on Th. Bridges, Martial, Hyades, and others.

South American missionary magazine, London, 1854-: Vols. I–IX, 1854–1862, published under title "The voice of pity for South America;" vols. X–XIII, 1863–1866, under title "A voice for South America;" vols. XIV–XLIX, 1867–1915, as above.

The official organ of the South American Missionary Society of London. The chief contributors on Fuegia have been Messrs. Th. Bridges, John Lawrence, E. C. Aspinall, John Williams, all missionaries with extensive experience among the Yahgans. Dr. Hyades calls (*q*, p. 6) this periodical "une mine inépuisable de renseignements sur les moeurs et les usages des Fuégiens." Nearly every number contains some communication from Fuegia. The cultural data scattered through the 49 volumes if culled and coordinated would make a book of first importance. The greater part of this material is, however, accessible in the Rev. Mr. Bridges' better known papers and in Dr Hyades' publications, especially *q*.

Complete files of this magazine are rare. The British Museum has the whole series; complete or nearly complete sets are owned by the La Plata Museum and by Prof. Furlong, of Boston. Some of the more recent volumes are available at the office of the American Board of Commissioners for Foreign Missions, Boston, at the Hammond Library, Chicago Theological Seminary (XXX to date), at the Northwestern University, Evanston, Ill. (XXXV to date), and at the Presbyterian Foreign Missions Library, New York City (XLV to date). The Day Missions Library at Yale possesses the following volumes: VII–XXII, 1873–1888, XL–, 1906 to date, and some stray numbers. The volumes in the Day Library are the only ones I have had an opportunity to consult. These I found to contain a great deal of material bearing on Yahgan moral and mental culture and a good amount of data on material culture. Recent numbers contain many good photographs.

Spears, John Randolph

The gold diggings of Cape Horn: A study of life in Tierra del Fuego and Patagonia, New York-London, 1895.

Contains on pp. 47–78 a lengthy account of the Yahgans, on pp. 127–134 a shorter one of the Onas, on pp. 134–136 a few data on the Alacaluf, and on pp. 79–127 passim some stray notes. While these descriptions give practically no new information, they are fairly reliable and accurate. They are, it seems, based chiefly if not entirely on good written sources, although the writer, a newspaper man, made a visit to Fuegia.

Spegazzini, Cárlos

(*a*) Costumbres de los habitantes de la Tierra de Fuego. (Reprint from *Anales Soc. cient. argent.*, Buenos Aires, 1882, XIV, 25 pp.)

An important paper on the culture of the Yahgans and Onas, including also 6 Ona words, 1 at least Mánekenkn, pp. 17–18, 20, and 2 Yahgan and 2 Alacaluf words, pp. 5–7, and Yahgan stature measurements, p. 4. The Onas described by Dr. Spegazzini called themselves Mác-ck (p. 16) and some of them at least were probably Mánekenkn. The data on the Yahgans do not differ materially from those given by Capt. Bove and Dr. Lovisato, except perhaps for a somewhat more favorable estimate of moral culture.

(*b*) Costumbres de los Patagones. (Ibid., 1884, XVII, 221–240.)

Contains passim a few data on Onan culture. On pp. 226 and 239 the author states his belief in the kinship of the Onas with the Tehuelches.

(*c*) Apuntes filológicos sobre las lenguas de la Tierra del Fuego. (Ibid., 1884, XVIII, 131–144.)

An important early contribution on Yahgan grammar, especially on the noun and adjective. The paper includes many Yahgan words passim. The article contains no Onan or Alacalufan grammatical data. The author states, on p. 132, that the three Fuegian languages differ absolutely in grammatical construction and that the Yahgan and Alcalufan show certain points of contact with the Araucanian. As far as the Alacalufan is concerned, both of these statements would seem to need confirmation. Except for a sentence or two in Vargas Ponce (*b*, p. 27) there is no published material on Alacalufan grammar. Dr. Spegazzini spent only a few days with the Alacaluf, and the English missionaries at the time did not speak the Alacalufan language (Hyades, *q*, p. 13) or at least had made very little progress in it.

(*d*) Plantae per Fuegiam a Carolo Spegazzini anno 1882 collectae. (In

Spegazzini, Cárlos—Continued

Anales Museo nac., Buenos Aires, 1896–97, vol. v, 2d ser. II, 39–104.)

Of the 313 species and varieties here described Dr. Spegazzini gives the Yahgan names for 44, the Alacalufan for 13, the Onan for 9.

Judging from Hyades, *q*, p. 22, there are some native words in Dr. Spegazzini's Fungi fuegiani, Buenos Aires, 1887.

(*e*) Vocabularios Ona, Yaghan y Alacaluf. MS. (Reference from Mitre, I, 176–177.)

This valuable manuscript, now in the Museo Mitre, is described by Gen. Mitre (I, p. 177) as "muy abundante en el Ona y el Yahgan, con algunas frases de estos dos idiomas, siendo muy breve respecto de los Alacaluf."

(*f*) Elementi di grammatica Iaghan, sistema Ollendorf. (Published in full by Mitre, I, 179–189.)

An important summary, including many Yahgan words.

(*g*) Parentesco de los Tehuelches con otros indios americanos. (Tema presentado al Congreso cient. internac. argent. en el 1er centenario de la revolución de mayo, sección antropología, julio, 1910.) (Reference from Dabbene.)

(*h*) Estudios sobre las lenguas patagónicas y fueguinas. (Tema presentado al mismo Congreso.) (Reference from Dabbene.)

Dr. Spegazzini accompanied the first Bove expedition as botanist, remaining in Fuegia from May 1 to July 17, 1882; hence he had good opportunities for personal observation of the Yahgans and to a lesser extent of the Onas and Alacaluf. In his linguistic studies, to which he devoted himself "con asiduidad," he was assisted by two very intelligent natives, who had been raised by the missionaries and who spoke English well, by another native who spoke Spanish, and by Messrs. Bridges and Whaits, who elucidated many difficult points. Dr. Spegazzini has since his return continued his researches in the Fuegian languages. While his contributions to Fuegian cultural anthropology are of permanent value, his more important and original contributions are in the linguistic field, especially in Yahgan grammar.

Speilbergen, Joris van

Oost ende West-Indische Spiegel, Leyden, 1619; repr. in Commelin, vol. II and Hartgers; Lat. tr., Leyden, 1619; Germ. tr., Hulsius, pt. XVII; Lat. and Germ. tr., de Bry, pt. XI, 1620; Fr. tr., Amsterdam, 1621; de Renneville; Engl. tr., abridged, Purchas, Pilgrimes, vol. I, bk. 2, ch. 6; Engl. tr. in full from orig. Dutch jour. by J. A. J. De Villiers, Hakluyt soc., 2d ser., vol. XVIII, London, 1906 (see discussion of authorship, Introd., pp. xii–xxxiii); de Brosses, I, 343–349; abstr. in Kerr, vol. X, in Harris, vol. I, bk. 1, ch. 7, in Bancarel, vol. II, in Prévost, vol. XV.

Chiefly of interest for the description (p. 34) of graves discovered in 1615 on one of the "Penguin Islands" (apparently Magdalen Island) just south of the second narrows in the eastern part of the Strait of Magellan. The two bodies "op hunne wyse begraven waren / hebbende een weynich Aerde op't lijf / rontomme besteecken met Pijlen ende Boghen."

Steffen, Hans

(*a*) Bericht über eine Reise in das chilenische Fjordgebiet nördlich vom 48° s. Br. (In *Verh. Deutsch. wiss. Vereins zu Santiago de Chile*, Valparaiso, 1904, v, 37–116.)

The author states (p. 54) that the Guaitecas Archipelago is now uninhabited. He met (pp. 110–112) no natives in Baker Inlet district, but came across a portage and some abandoned canoes.

(*b*) Viajes de esploracion i estudio en la Patagonia occidental 1892–1902, 2 vols., Santiago de Chile, 1909–10.

Contains (II, 346–348) a few notes on the natives of the Patagonian channels; not important.

(*c*) Neuere Arbeiten der chilenischen Marine in der Küstenregion West-Patagoniens. (In *Zeitschr. Ges. f. Erdkunde*, Berlin, 1913, no. 6, pp. 451–468.)

Contains (pp. 462–463, 466–467) a few notes on the Channel Alacaluf gleaned from the Chilean officers' accounts in recent numbers of the *Anuario hidrográfico de la marina de Chile*.

The writer has spent much time in the vicinity of the Patagonian channels, but he has apparently had little contact with the natives and gives very meager data on them.

Steinmetz, Rudolf S.

Endokannibalismus. (In *Mitt. Anthr. Ges.*, Wien, 1896, XXVI, n. s. XVI, 1–60.)

Contains (p. 16) a good discussion of the question of cannibalism among the Fuegians.

Stevens, John

A new collection of voyages and travels, London, 1708–9, vol. I.

Contains an English translation of Argensola's Conquista de las islas Malucas, including (pp. 74–83) the account of Sarmiento's voyage.

Stirling, Waite Hockin

(*a*) *and* **Marsh, J. W.** *See* Marsh, *a*.

(*b*) Letters and journal. (Extracts given in Marsh, *b*, and in *South American missionary magazine*, passim.)

Bishop Stirling was in close touch with the Yahgans at the Falkland Mission and in their native islands between 1863 and 1869. His published writings are chiefly of value for the light they throw on Yahgan moral culture.

Stokes, Pringle

Extracts from journal. (In King passim.)

Contain (pp. 74–77, 166) a few notes on natives met at Mercy Harbor, and on wigwams seen at Port Santa Barbara in the Guaianecos Islands. Capt. Stokes was commander of the *Beagle* on the first expedition until his death, in Aug., 1828.

Stratz, Carl Heinrich

Naturgeschichte des Menschen, Stuttgart, 1904.

Contains (pp. 225, 229, 232, 314–320) a lengthy treatment of the descriptive somatology of the Fuegians (Yahgans and Alacaluf), based on Hyades, R. Martin, Virchow. Some excellent photographs of Fuegian types.

Stuart, Martinus

De mensch, zoo als hij voorkomt op den bekenden aardbol, 6 vols., Amsterdam, 1802–1807.

Contains (IV, 251–266) an account of the Fuegians, based chiefly on the results of Capt. Cook's expeditions.

Stübel, Alfons, Reiss, Johann Wilhelm, Koppel, B., *and* **Uhle, Friedrich Max**

Kultur und Industrie südamerikanischer Völker, 2 vols., Berlin, 1889–90.

Contains (II, pl. 10, fig. 10; pl. 25, fig. 6) excellent illustrations, with short descriptive text, of a fish net and a necklace from Desolation Island.

Sutcliffe, Thomas

Crusoniana; or truth versus fiction, Manchester, 1843.

Contains Byron's Loss of the *Wager*, and the adventures of the *Anna Pink* from Walter.

Taylor, George

Journal. (Quoted in Betagh, q. v.)

Techo (Du Toict), Nicolas del

Historia provinciae Paraquariae Societatis Jesu, Leodii, 1673; Engl. tr. in Churchill, IV, 636–749.

Contains (bk. 6, ch. 8–10, pp. 159–161; tr., pp. 676–677) a short but important description of the culture of the Chonos, based, in the main at least, on the reports of the early missionaries to the Guaitecas Islanders. Many points of resemblance between Father Del Techo's and Goicueta's accounts of the Chonos and "Huilles" suggest that the former may also have made use of the latter's narrative, particularly in describing the "Huillis." On p. 160 Father Del Techo notes Father Ferrufino's (q. v.) translations into the language of the Chonos.

Terre de Feu. (In *Jour. des missions évangéliques*, Paris, Aug., 1876.) (Reference from Hyades.)

Probably based on Th. Bridges.

Terrien, Ferdinand

Douze ans dans l'Amérique latine, Paris, [1903].

Contains (p. 332) meager, unimportant notes on the Onas. Msgr. Terrien had very limited personal contact with the natives.

Testut, L.

See Hyades, *q*.

Thomas, Pascoe

A true and impartial journal of a voyage to the South Seas, and round the globe, in His Majesty's ship the *Centurion*, under the command of Commodore George Anson, London, 1745; abstr. in Henry, vol. II.

Contains (p. 33) a few notes on the family of Chonos encountered by the *Anna Pink* near the Inchin Islands in 1741. The author accompanied Anson.

Tiele, Pieter Anton

(*a*) Mémoire bibliographique sur les journaux des navigateurs néerlandais, Amsterdam, 1867.

Contains important data (pp. 20–38, 63–81) on the authorship and early Dutch editions of the narratives of de Weert's, van Noort's, van Speilbergen's and L'Hermite's voyages.

(*b*) Nederlandsche bibliographie van land- en volkenkunde, ibid., 1884.

Contains passim a great deal of valuable bibliographical material bearing in particular on the Dutch editions and translations of early sources for Fuegian anthropology.

Tierra del Fuego. (In Encycl. brit., 11th ed., Cambridge, 1911, XXVI.)

A well-written article, containing a very short summary of Fuegian anthropology. Select bibliography.

Tierra del Fuego as a mission field. (In *Mission life*, London, 1877, n. s. VIII, part 1, pp. 3–6.)

Contains meager unimportant notes on the Yahgans and Alacaluf.

Tonelli

[Manuscript notes.]

These notes are largely drawn upon by Dr. Cojazzi (q. v.). Prof. Tonelli made extensive and careful researches, especially among the Onas and Alacaluf, during a recent visit to Fuegia. In addition he gathered much valuable cultural and linguistic material from the Salesian missionaries and the Bridges brothers.

Topinard, Paul

[Observations on the Hagenbeck group of Alacaluf.] (In *Bull. Soc. d'anthr. de Paris*, 1881, 3d ser. IV, 774–782.)

Some interesting notes, chiefly on the physical appearance and material culture of the Alacaluf, based on observation of the native group exhibited at Paris. On p. 775 one Alacalufan word.

Townsend, Charles Haskins

A naturalist in the Straits of Magellan. (In *Pop. sci. monthly*, New York, July, 1910, LXXVII, 5–18.)

Contains (pp. 9–12) an unimportant description of Alacaluf met casually. The estimate of 40 to 50 thousand as the population of Fuegia 50 years ago is much too high.

Turner, William

Report on the scientific results of the voyage of H. M. S. *Challenger* during the years 1873–1876. Zoology, vol. X, part 29, Report on the human skeletons, The crania, London, 1884; vol. XVI, part 47, The other bones of the skeleton, ibid., 1886.

Contains a review (X, pt. 29, pp. 21–26) of previously published studies in Fuegian somatology, and the writer's own description and measurements (ibid., pp. 17–20; vol. XVI, pt. 47, passim) of the Fuegian skeletal remains obtained at Punta Arenas by the *Challenger* expedition from Don Diego Dublé Almeida, then governor of the Chilean colony. These remains consisted of 4 crania (2 ♂, 1 ♀, and 1 probably ♀) and some other bones. Plate I, figures 5–6; plate VI, figure 2.

Uhle, Friedrich Max

See Stübel.

Ulloa, Francisco de. 1553–54

See Ramon Guerrero Vergara, Carta sobre la muerte de Valdivia, *and* Rosales, *a* (also quoted in *An. hidr. mar. Chile*, V, 481.)

Vargas [y] Ponce, José de

(*a*) Relacion del último viage al estrecho de Magallanes de la fragata de S. M. Santa María de la Cabeza en los años de 1785 y 1786, Madrid, 1788; abstr. and extr. with description of natives, Maccarthy, vol. X; Germ. ditto, Weimar, 1820; Engl. ditto, 1820 (in Sir Rich. Phillips, New voyages, London, 1819–1823, vol. II, no. 5, according to Sabin, nos. 16772, 62509).

One of the most important extant sources for Alacalufan culture, particularly material culture. See especially the very detailed and careful description on pp. 337–355 of the Port Famine and Port Gallant Alacaluf with whom the de Córdoba expedition had two and a half months of contact in the early part of 1786. A few other notes passim, pp. 34–36, 41–42, 47–48.

(*b*) Apéndice a la Relacion del viage al Magallanes de la fragata de guerra Santa María de la Cabeza, que contiene el de los paquebotes Santa Casilda y Santa Eulalia para completar el reconocimiento del Estrecho en los años de 1788 y 1789, Madrid, 1793; Engl. and Germ. as above (the Germ. summary, according to the title page a tr. of the Engl., gives no dates; it is based chiefly on the first expedition).

A valuable source for Alacalufan culture, but not so important as the preceding work. Chiefly of interest for the description (pp. 58–60) of the plank-boat-using Indians met west of Cape Upright in Jan., 1789. See also the description (pp. 24–29), quoted from the notes of Lieut. Ciriaco de Cevallos, chiefly of the natives met in Dec., 1788, between Capes St. Isidore and Froward. On pp. 27–28 are 3 native words, *ok-si*, "give," *pissiri*, "son," "child," "boy," and at times "man," *kap*, "future," and a grammatical note: "No varían las terminaciones de los verbos, ni distinguen de otro modo los tiempos." This Alacalufan linguistic material is of very doubtful value.

Vea, Antonio de

Relacion diaria del viaje que se ha hecho a las costas del estrecho de Magallanes con recelo de enemigos de Europa, 1675–1676. (Ed. by Francisco Vidal Gormaz in *An. hidr. mar. Chile*, Santiago, 1886, XI, 539–596.)

Contains (pp. 573–578) data that have a more or less important bearing on the question of Chonoan linguistic relationships.

Venegas, Melchor de

[Letter to the Father Provincial Diego de Torres, dated Nov. 27, 1612.] (Extract quoted in Lozano, vol. II, bk. 7, ch. 3, no. 35, p. 456.)

This letter, besides giving some interesting data on Father Matheo Estevan's (q. v.) studies

Venegas, Melchor de—Continued

and compositions in the Chonoan language, contains the earliest clear record, as far as I am aware, of the use of the name "Chonos" to designate the canoe-using natives of the Guaitecas Islands.

Verneau, René

(*a*) Les races humaines, Paris, 1890–91.

Contains (pp. 775–781) a good and rather extensive account of Yahgan culture, based on Hahn, Hyades. Five woodcuts.

(*b*) Les anciens Patagons, Monaco, 1903.

Of value for the study of the relations of the Fuegians to the Patagonians. See especially pp. 323–325.

Villefort, de

Journal du sieur de Villefort. MS. (Extract in de Brosses, II, 113–125.)

Contains (pp. 115–118, 120) brief notes on the Alacaluf met casually several times in June–Dec., 1699, between C. Gate (Quod?) and the eastern end of the Strait. "Deux nations qui sont toujours en guerre habitent également l'un & l'autre côté du détroit, l'une nommée Laguediche, depuis l'entrée du nord jusqu'à S. Sébastien, l'autre plus nombreuse nommée Haveguediche, depuis le canal S. Jérôme au cap Gate d'un & d'autre côté" (p. 120). The author accompanied Beauchesne-Gouin.

Vincent, Frank

Around and about South America, New York, 1890.

Contains (pp. 122–126) an excellent short account of Alacaluf met casually in Smyth Channel [and in the Straits]. The notes (pp. 132, 141) on the other Fuegians are apparently not based on personal observation.

Virchow, Rudolf Ludwig Karl

(*a*) Die Feuerländer. (In *Verh. d. Berlin. Ges. f. Anthr. u. s. w.*, 1881, pp. [375]–393.)

An important study of Alacalufan anatomy. The paper is based partly on the then written sources, partly on personal study of 4 men and 2 women of the Hagenbeck group of Alacaluf. Table of measurements, pp. 392–393. 1 plate and figures 1–2 in text.

(*b*) Crania ethnica americana, Supplement zu *Zeitschr. f. Ethnol.*, Berlin, 1892, XXIV, 1–33.

Prof. Virchow repeats (p. 19) his statement from the preceding article (*a*, p. 382) that he found no trace of head deformation among the Fuegians.

Voice of Pity for South America. A Voice for South America.

See South Amer. miss. mag.

Voyage round the world, in H. M. S. the *Dolphin*, commanded by the Honourable Commodore Byron, by an officer on board the said ship, London, 1767; Fr. tr., Paris, 1767 (Medina, *c*, vol. III, p. 9, and Sabin, no. 9734); Dutch tr., Haerlem, 1767; Span. tr., 2d ed., Madrid, 1769; Germ. tr., Frankfurt-Leipzig, 1769 (Sabin, no. 9736).

Contains (pp. 56, 87–97; Span. tr., pp. 55–56, 83–88, 91) good but short accounts of the natives met in 1764–65 at various points between Elizabeth Island and the western end of the Strait of Magellan. The description (p. 56; Span. tr., pp. 55–56) of the Elizabeth Island natives is lacking in Byron's own narrative as it appears in Hawkesworth.

Voyages, adventures, and discoveries of the following circumnavigators, etc., London, 1758; repr., ibid., 1763.

In the abstracts of the voyages of Cavendish, van Noort, de Weert, van Speilbergen, and L'Hermite, the Fuegian anthropological data are given, but not in full.

Waitz, Franz Theodor

Anthropologie der Naturvölker, 6 vols., Leipzig, 1859–1872.

The third volume, published in 1862, contains (pp. 484–491 passim, 496–497, 507–508, 526–527) quite an extensive treatment of the Fuegians and Chonos, based on King, Fitz-Roy, Darwin, Wilkes, d'Orbigny, Dumont d'Urville, and some of the earlier sources. This account is one of the best of its kind, but needs considerable revision and amplification in the light of more recent studies.

Walbeeck, Johannes van

Journael vande Nassausche vloot / ofte Beschryvingh vande voyagie om den gantschen aerd-kloot / ghedaen met elf schepen: onder 't beleydt van den Admirael Jaques l'Heremite, ende Vice-Admirael Gheen Huygen Schapenham, in de jaren 1623, 1624, 1625, en 1626, Amsterdam, 1643 (an enlargement, according to Tiele, *a*, 76–77, 81, and *b*, 150, of the orig. ed. of 1626); repr. in Commelin, vol. II, and Hartgers; Germ. tr. of 1st ed. with additions by Adolf Decker, Strassburg, 1629; same, Hulsius, pt. XXII; Lat. and Germ. tr. in de Bry, vol. XIII (XIV); Fr. tr., de Renneville, vol. IV, 2d ed., Amsterdam, vol. V, Rouen ed., vol. IX; de Brosses, I, 437–451; abstr. in Kerr, vol. X, in Ban-

Walbeeck, Johannes van—Continued

carel, vol. II; in Prévost, vol. XV; in Laet, bk. 12, Lat. and Fr. tr., bk. 13.

Our earliest and an important source on the Yahgans, containing (pp. 41–43, of 1643 ed.) a rather lengthy and detailed description of the natives met in the Nassau Bay district in February, 1624. Barring a few points (as cannibalism, stone fishhook, cattle) the cultural data have been confirmed by later investigators.

According to Dr. Tiele (*a*, 80–81; *b*, 150) the probable author of the Dutch journal was Johannes van Walbeeck. Both he and Decker were members of the expedition.

Wallis, Samuel

An account of a voyage round the world in the years MDCCLXVI, MDCCLXVII, and MDCCLXVIII, by Samuel Wallis, Esq., commander of His Majesty's ship the *Dolphin*. (In Hawkesworth, I, q. v.)

Contains (I, 390–392, 403–405; 2d ed., I, 170–172, 183–187) some good though hardly important descriptive notes on Alacaluf met casually in Jan., 1767, at Elizabeth Bay and ten leagues east of Cape Upright.

Walter, Richard

A voyage round the world in the years MDCCXL, I, II, III, IV by George Anson, Esq., London, 1748; Kerr, vol. XI; Purves; Fr. tr., Amsterdam, 1749 (Sabin, no. 1637); Germ. tr., Leipzig-Göttingen, 1749 (Sabin, no. 1640); Dutch tr., 2d ed., 1749 (Tiele, *b*, no. 42, p. 11), Amsterdam, 1765 (Sabin, no. 1641); Ital. tr., Livorno, 1756; de Brosses, II, 259–304; extr. in Sutcliffe; abstr. in E. C. Drake; in World displayed, 4th ed., vol. VII; in Knox, vol. VII; in Prévost, vol. XV; in Entertaining account, 3d ed.

Contains an interesting but not very important account of a family of Chonos met in 1741 near the Inchin Islands by the *Anna Pink* (pp. 142-145), and a few notes passim on the natives encountered by the crew of the *Wager*.

Weber S., Alfredo

Chiloé, su estado actual, su colonizacion, su porvenir, Santiago de Chile, 1903.

Contains (p. 8) an unimportant paragraph on the Chonos, and (pp. 22–36) an account of the discovery and early history of Chiloé.

Webster, Hutton

Primitive secret societies, New York, 1908.

Contains (pp. 56, 176–177) an account of Yahgan initiations, based on Hyades.

Webster, William Henry Bayley

Narrative of a voyage to the southern Atlantic Ocean in the years 1828, 29, 30, performed in H. M. sloop *Chanticleer* under the command of the late Captain Henry Foster, F. R. S., from the private journal of W. H. B. Webster, surgeon of the sloop, 2 vols., London, 1834.

Contains (I, 175–185) an excellent and extensive description of the Yahgans met casually in 1829 at St. Martin's Cove on Hermit Island. The account is detailed and sympathetic.

Weddell, James

A voyage towards the south pole, performed in the years 1822–1824, London, 1825; see also Montémont, vol. XXI.

Contains excellent accounts of the natives, seemingly all Yahgans, met in 1823–24 at St. Martin's Cove, Hermit Island (pp. 148–158), at Blunder Cove (pp. 161–168), and at Indian Cove, New Year Sound (pp. 172–186). On pp. 188–192 are a few remarks chiefly on Fuegian mental capacity, and on p. 173 four native words taken at Indian Cove. The analogies of these words with either Yahgan or Alacaluf are too remote to justify even a probable identification.

Weert, Sebald de. 1599–1600

See Barent Jansz Potgieter.

Westermarck, Edward

The origin and development of the moral ideas, 2 vols., 2d ed., London, 1912.

Contains references passim to Fuegian morality, and (II, 681–682) a sharp but not very convincing criticism of Mr. Lang's conclusions regarding the Fuegian "supreme Deity." Mr. Bridges, whom the author quotes against Mr. Lang, was an authority on the Yahgans, while the "great black man" was an Alacaluf creation.

Weule, Karl

Leitfaden der Völkerkunde, Leipzig-Wein, 1912.

Contains (pp. 51–53) a short account of the Fuegians and Chonos, and other notes passim; not important.

Many of Dr. Weule's other works contain passing references to the Fuegians. Cf. Das Meer und die Naturvölker (in Zu Fr. Ratzels Gedächtnis), Leipzig, 1904; Die Kultur der Kulturlosen, Stuttgart, [1910]; Die Urgesellschaft und ihre Lebensfürsorge, ibid., 1912.

Whaits, R.

Yahgan dictionary. MS. (Reference from Spegazzini, *c*, p. 131.)

Dr. Spegazzini states (ibid.) that Messrs. Th. Bridges and Whaits "cada uno por su cuenta, han confeccionado diccionarios muy extensos, y

Whaits, R.—Continued

de un trabajo minucioso y esmerado." I have seen no other mention of this valuable manuscript. Mr. Whaits spent many years at the English mission, learned to speak Yahgan very well, and gave considerable aid to the members of the Bove Expedition in their linguistic studies. *See* Lovisato, Spegazzini.

Wheele, Paul. 1590

See Magoths.

Whistling, Karl

See Platzmann.

Whiteside, Arturo

Memoria sobre los trabajos hidrográficos efectuados en los canales Mayne i Gray. (In *An. hidr. mar. Chile*, Valparaiso, 1912, XXVII, 3–26.)

Contains (pp. 17–18) notes on the Channel Alacaluf met in 1904, and (pp. 18–20) a short vocabulary and comparison of same with Father Beauvoir's Alacaluf list. The vocabulary, consisting of 43 words, was gathered by the purser, Señor Iriarte, and one of the petty officers from two native boys taken aboard at Última Speranza Inlet. Allowing for inevitable errors, the vocabulary is clearly Alacalufan, and while by no means as extensive as Dr. Skottsberg's list and perhaps not as exact, is of importance inasmuch as it gives the first published tangible evidence that the Alacalufan language is spoken by some at least of the Patagonian channel Indians.

Wieghardt, Jerman

El territorio de Magallanes, tomo VI, Indíjenas fueguinos i patagones, primera parte, Santiago de Chile, 1896, 59 pp. (Reference from Anrique, p. 398.)

This paper, frequently quoted, is probably important, but like Señor Señoret's, seems difficult to procure.

Wilda, Johannes

Amerika-Wanderungen eines Deutschen, 3 vols., Berlin, 1906–7.

Contains (III, 271–273) an unimportant description of a canoe load of Channel Alacaluf met casually in Wide Channel.

Wilkes, Charles

(*a*) Narrative of the United States exploring expedition during the years 1838, 1839, 1840, 1841, 1842, 5 vols., Philadelphia, 1844; ibid., 1845; same, 1850.

Contains good accounts of the Onas, probably Mánekenkn, observed for a few hours at Good Success Bay (I, 116–118; 1845 ed., I, 113–115) and of the Yahgans studied more at leisure at Orange Harbor and Wollaston Island (I, 125–133, 146–147; 1845 ed., I, 121–129, 142). The Yahgan cultural data are especially valuable. Two Ona words of very doubtful value (I, 118; 1845 ed., I, 115).

Wilkes, Charles—Continued

(*b*) Voyage round the world, embracing the principal events of the Narrative of the United States exploring expedition, in one volume, ibid., 1849; New York, 1851; 2 vols., London, 1852.

This work, though written in more popular style, contains (pp. 45–47, 49–53; London ed., I, 40–41, 43–46) the same cultural data, with, however, some slight omissions, as does the complete Narrative.

The expedition was in Ona and Yahgan territory in Jan.–Feb., 1839. The members saw very little of the Onas, but had considerable contact with the Yahgans, especially at Orange Harbor. For other accounts of the natives observed, see Pickering, Colvocoresses.

Willems

(*a*) *and* **Rousson.** *See* Rousson, *a.*

(*b*) *and* **Rousson.** *See* Rousson, *b.*

(*c*) La Terre-de-Feu et ses habitants. (In *Bull. Soc. de géogr. commerciale de Bordeaux*, 1892, 2d ser. XV, 231–239.)

Contains practically the same cultural data as do the articles written conjointly with M. Rousson.

(*d*) La Patagonie chilienne et la Terre de Feu. (In *Bull. Union géogr. du Nord de la France*, Douai, 1893, XIV, 244–247.)

Contains about the same cultural data on the Fuegians as does the preceding article. For comments, see Rousson.

Williams, John

(*a*) Letters. (In *S. Amer. miss. mag.*, London, recent numbers.)

Some of these contain interesting data on the few surviving Yahgans.

(*b*) Morning and evening prayer with selected collects, in Yahgan. (Reference from *S. Amer. miss. mag.*, 1911, p. 69.)

The manuscript of the above had just been sent to London for publication.

The Rev. Mr. Williams is in charge of the English Mission at Rio Douglas, Navarin Island. According to a notice in the *South American missionary magazine* (1908, XLII, 153), he has in his possession a manuscript Yahgan dictionary by the Rev. Thomas Bridges, which he is transcribing with the aid of natives from the Ellis system into the ordinary English alphabet.

Williams, Richard

Journal. (Extracts in Hamilton.)

See comment under Hamilton.

Wilson, John

[Somatological notes on the Fuegians.] (In Fitz-Roy, *b*, pp. 142–149.)

For comment see Fitz-Roy. Dr. Wilson was surgeon of the *Beagle* under Admiral Fitz-Roy.

Winter, Nevin Otto

Chile and her people of to-day, Boston, 1912.

Contains (pp. 126–127, 142–147) unimportant accounts of the Fuegians, and on p. 143 the statement—apparently de rigueur in recent works of this type—that the Fuegians throw their old women and children overboard in dangerous storms.

Wood, John

Captain Wood's voyage through the Streights of Magellan, &c. (In Hacke's Collection (q. v.); for repr. and Germ. and Fr. tr., see Dampier; abstr. in Prévost, vol. xv.)

Contains (pp. 81, 84, 87, 97) some notes on the Alacaluf met in 1670 at Elizabeth Island and Port Famine. Wood's descriptions are in agreement with those of Narbrough, whom he accompanied, but are very much briefer.

Wood, John George

The natural history of man, 2 vols., London, 1868–1870; published as The uncivilized races of men in all countries of the world, 2 vols., Hartford, 1870.

Contains (II, 513–523; Amer. ed., II, 1161–1171) an extensive description of the culture of the Yahgans and Alacaluf, based chiefly on Byron, W. H. B. Webster, King, Snow. The account is in general good, but there are some inaccuracies, and considerable revision would be needed to bring it up to date.

World displayed, 4th ed., rev., 20 vols., London, 1762–1790.

Vol. VII gives an abstract of Anson's voyage from Walter's narrative. Cf. Knox.

Wyse, Lucien Napoléon Bonaparte

De Montevideo à Valparaiso par le détroit de Magellan et les canaux patagoniens. (In *Bull. Soc. de géogr. de Lyon*, Jan., 1877, vol. I, no. 6, pp. 524–553; extract in Feuilleret, pp. 238–239.)

Wyse, Lucien Napoléon Bonaparte—Con.

Contains (pp. 531, 533–538) some brief unimportant notes on the Onas and Alacaluf, the latter seen in the Strait and Patagonian channels. On p. 531 one word, *quichache*, "clothes," from a native met in English or Crooked Reach.

Xikora, Juan

Catechism and prayer book (?) in Alacaluf. (In preparation.) (Reference from Dr. Cojazzi, private communication.)

Dr. Cojazzi writes me under date of Mar. 25, 1915, that Brother Xikora is preparing an Alacaluf translation to serve perhaps as a catechism or prayer book. Brother Xikora was attached to the Candelaria mission on Tierra del Fuego and can speak Alacaluf, although with a little difficulty. This work should be of much value and interest, and will be the first text published in the Alacalufan language.

Young, Robert

From Cape Horn to Panama, London, 1900; 2d ed., revised and enlarged, ibid., 1905.

Contains (pp. 1–79; 2d ed., pp. 1–82) a history of the Ushuaia mission, which throws some light on Yahgan character. The author quotes (p. 61; 2d ed., p. 66) a letter written under date of Feb. 11, 1899, by Mr. Lucas Bridges, which though short gives some valuable information on Onan moral culture. Many excellent photos illustrating types and occupations in 2d ed.

Zampa, Raffaello

Fueghini ed Araucani. (In *Arch. per l'antrop. e l'etnol.*, Firenze, 1892, XXII, 361–366.)

Contains a description together with cranial and other measurements of 3 Alacaluf of about 25, 10–11, and 4–5 years, respectively, and of 1 Ona boy of about 6–9 years. When seen by Dr. Zampa they were on their way to the Genoa exposition of 1892 in charge of Father Beauvoir (q. v., *a*, insert after p. 4) of the Salesian missions.

Zur Anthropologie der Feuerländer. (In *Globus*, Braunschweig, 1892, LXI, 205.)

A brief résumé of some of the chief conclusions given in Hyades, *q*, on Fuegian somatology.

SUBJECT BIBLIOGRAPHY

In the lists of sources a star or double star is affixed to those which appear to the present writer to be of more or of greatest importance.

The sections on Culture, Archeology, and Relations are cast in the form of outlines.

ORIENTATION

For the benefit of those who may wish a short list of references covering the field of Fuegian and Chonoan anthropology pretty fully, the following is given:

General introduction to whole field of Fuegian anthropology: Dabbene, *b*; else Furlong, *j* and *k*. Yahgans: Hyades, *q*, somatology, culture, language. Alacaluf: Fitz-Roy, *a*, culture; R. Martin, *b*, somatology; Coppinger or Skottsberg, *b* or *d*, West Patagonian Alacaluf. Onas: C. Gallardo and Cojazzi, culture; Hultkrantz, *b*, somatology.

Chonos: Del Techo, García, *a*, and Byron, *a*, or A. Campbell.

For language, see special lists, infra.

BIBLIOGRAPHIES

The more important bibliographies on Fuegian anthropology are: Hyades, *q*, 393–402, to 1890; R. Martin, *b*, 216–217, to 1893; Dabbene, *b*, 288–300, to 1911. On the Fuegian languages in particular the more important lists are: Mitre, I, 153–179; Chamberlain, *a* and *b*, based chiefly, as concerns the Fuegians and Chonos, on preceding; Lehmann-Nitsche, *d*, 240–242. Other lists which have been found of use by the present writer are: Anrique and Silva, Anuario de la prensa chilena, O'Halloran, P. L. Phillips, Porter, *b*, Sabin, Schuller, Tiele, *a*, *b*, Tierra del Fuego in Encyclopædia Britannica.

ETHNOLOGICAL MAPS

Such are given in: Barclay, *a*, 152; Bove, *b* and *c* (reproduced in Holmberg, *a*); Holmberg, *a;* Hyades, *q;* Furlong, *b* and *d*, 225, and especially *q* and *r;* Skottsberg, *d*.

ENVIRONMENT: CLIMATE, GEOLOGY, FLORA, FAUNA, ETC.

Sufficient data for the purpose of the anthropologist are given in: C. Gallardo, 1–93; Th. Bridges, *k*, 221–232; Hyades, *q*, 19–23; Mission du cap Horn, vols. II, IV, V, VI; Furlong, *j*, *k*, and especially *q*.

See also Ball; Th. Bridges, *b*, Sept. 1, 1880, 197; *h*, 200–203; *j*, 319; Cunningham; Dabbene, *b*, 163–166; Hyades, *b*, *c;* Ibar Sierra; Martial, 205; O. Nordenskjöld, *i;* Popper, *d;* Townsend.

Somatology

The sources which deal with the somatological relations of the Chonos and three Fuegian tribes to one another and to other peoples are given in the Introduction, and under Relations in the Subject Bibliography.

In the following somatological bibliography certain sections only of the subject are separately listed; papers bearing on the other sections are few, and so have been grouped under the comprehensive heading "Studies, chiefly anatomical, in part physiological and pathological." Further data on the contents of the sources on somatology are given in the Author Bibliography under the respective names. Most visitors to Fuegia have had something to say about the physical appearance of the aborigines, but only a few of the more important descriptions of this kind are included in the present list.

Our two most important somatological studies of the Fuegians are (1) that by Drs. Hyades and Deniker (*q*), treating all branches of Yahgan somatology, and (2) that by Dr. R. Martin (*b*), dealing with Yahgan and Alacalufan anatomy.

ANATOMY

Original studies, based on direct examination of living subjects or of skeletal or other remains.

(1) Stature. (*a*) Alacaluf. Bischoff, *a*, 3; *c*, 368; Böhr; Brine, 148; Coppinger, 44, 49; Cunningham, 320; Essendorfer, 62, est.;[1] G. Forster, II, 499, est.; Hyades, *q*, 110–114, 120; ten Kate, 45, cadaver; King, 75; Manouvrier,* *a*, 772, 774; Outes,* *c*, 220–221; Skottsberg,* *b*, 251–253; *c*, 93; *d*, 593; Virchow,* *a*, 377, 379, 393; Wallis, in Hawkesworth, I, 391, 2d ed., 171, est.; Wilson, in Fitz-Roy, *b*, 142, Alacaluf or Yahgan; Zampa, 364.

(*b*) Yahgans. Bove,* *b*, 144; *c*, 126; *d*, *Arch.*, 289; also reprinted in Cora, 233–234; Th. Bridges, MS. cited by Hyades, *q*, 116; *b*, Jan., 1882, 12, cited by Garson, 148; *d*, 289; Despard, *b*, 679, est.; Fitz-Roy, *a*, 138; Furlong, *b*, 127; *j*; *q*; Hahn,* MS. cited in Hyades, *q*, 116, 118–119; Hyades,* *q*, 110–114, 116–119; Lovisato, *b*, 129; Martial,* 186–187; M'Cormick, I, 322; Snow, *a*, vol. I, 346; *b*, 263; Spegazzini, *a*, 4; Weddell, 157; Wilkes, I, 126, 1845 ed., I, 121, est.; Wilson, in Fitz-Roy, *b*, 142, Yahgan or Alacaluf.

(*c*) Onas-Shílk'nam. Barclay, *a*, 70; Furlong,* *d*, 220; *i*, 11; *k*; *q*; C. Gallardo, 110; Lehmann-Nitsche, *a*; Lista, *b*, 81; O. Nordenskjöld, *h*, *Tour du monde*, 33; *j*, 127; Outes,* *c*, 220–221; Zampa, 364.

(*d*) Onas-Mánekenkn. Furlong, *k*, est.; Lista,* *b*, 126, 56; Parkinson, 7, est.; Banks, 59, est.; cf. also Darwin, *a*, 1871 ed., 205, and Colvocoresses, 35, est.

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[1] Est.=estimated, not measured.

For calculations of stature based on skeleton, see following section.

(2) Osteology. (*a*) Alacaluf. Flower, no. 1025, 1 cr., no. 1025,^{1} 1 skel.[1] Alacalufan or Yahgan; Garson, 1 cr. and parts of skel.; Hultkrantz, *a*, 1 cr., probably Alacalufan; Huxley, 2 cr., one of them possibly Onan; ten Kate, 47–49, 1 cr. and parts of skel.; Latcham,* 281–282, 2 cr. from Wellington Island, 279–280, 6 cr.; Mantegazza and Regalia, 1 cr., probably Alacalufan; R. Martin,* 5 complete skel.; *b*, ditto; Medina, *a*, 108, 1 cr., Alacalufan or Yahgan; Mehnert, 70–71, 1 cr.; Owen, 846–848, 1 cr. and parts of skel., brief description only; Quatrefages and Hamy, *a*, 2 cr.; Rey, 48–52, 1 cr., probably Alacalufan; Sergi, *a*, 2 skel., perhaps Alacalufan; Turner,* 4 cr. and some other bones.

(*b*) Chonos. Flower,* 178, 2d ed., 309–310, 4 cr. (two mutilated), and other bones; Hultkrantz,* *a*, 1 cr.; Hyades, *q*, 45; Latcham,* 281–282, 6 cr.; Medina, *a*, 108, 2 cr.; Outes,* *c*, 219, 2 cr. Cf. also E. Schmidt, 168–169, Payo cr.

(*c*) Yahgans. Flower,* no. 1025,^{1} 1 skel., Yahgan or Alacalufan, nos. 1026–1027, 1025^2–1025^8, 1027,^{1} 10 cr.; Garson,* 8 cr. and parts of 3–4 skel.; Hrdlička, *a*, in Dabbene, *b*, 283, 1 cr.; Hultkrantz, *a*, 2 cr.; *b*,* 2 complete skel., 1 additional cr., and 1 child's cr.; Hyades and Deniker,* *q*, 25–60, 4 complete skel. (of which two are of infants), 3 isolated cr., 2 incomplete skel., many bones; ten Kate, 1 cr, and parts of skel.; Mantegazza and Regalia,* 17 cr.; Medina, *a*, 108, 1 cr., Yahgan or Alacalufan; Sergi,* *a*, 11 (or 13) skel.; *b*, 1 additional skel., probably Yahgan.

(*d*) Onas. Giuffrida-Ruggeri, 1 cr., Onan (?) or perhaps Patagonian; Hoyos Sáinz, *b*, 1 cr., probably Onan; Hrdlička,* *a*, in Dabbene, *b*, 283, 2 cr.; Hultkrantz, *a*, 3 cr.; *b*,* 3 skel., and 2 additional skel. and 1 cr.; Huxley, 1 cr., possibly Onan; Rivet, 257, restudy of 3 of Hultkrantz' cr.

(3) Measurements of living subjects. (*a*) Alacaluf. Böhr, head, 3 men; Brine, 148, chest; Hyades,* *q*, 105–161 passim and especially 110–114, head and body, 2 women; ten Kate, 45–46, body, postmortem, 1 woman; Manouvrier,* 772–774, head and body, 4 men and 4 women, body, 3 children; Outes, *c*, head, 2 men and 7 women; Skottsberg,* *b*, 250–256, head and body, 6 men and 5 women; Virchow,* *a*, 377–388, 392–393, head and body, 4 men and 2 women; Wilson, in Fitz-Roy, *b*, 142–147, Alacaluf or Yahgans, some measurements; Zampa, 364, head and body, 1 man and 2 boys.

(*b*) Yahgans. Hyades,* *q*, 105–161, head and body, 28 men, 23 women, 20 boys and 16 girls; ten Kate, 43–44, head and body, postmortem, 1 man; Wilson, in Fitz-Roy, *b*, 142–147, Yahgans or Alacaluf, some measurements.

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[1] Cr.=cranium, skull, or calvaria; skel.=skeleton.

(*c*) Onas. Lista, *b*, 54, statement that Onas are subdolichocephalic, but no measurements; Outes,* *c*, head, 3 men and 11 women; Zampa, 364, head and body, 1 boy.

ANATOMY, PHYSIOLOGY, PATHOLOGY

Various original studies, chiefly anatomical, in part physiological and pathological.

(*a*) Alacaluf. Bischoff, *b*, sexual anat. and physiol.; *c*, anat. of sexual and some other organs, also brain weight; Coppinger, 49–50, physical appearance; Hyades, *q*, 105–161 passim, various observations; Chr. Jakob, 70–71, 1 brain; ten Kate, study of 1 brain, various anat. notes; Manouvrier, *a*, 762–766, physical appearance; *b*, color distinguishing; *c*, 1 brain; Outes, *c*, color of skin and iris; Seggel, eyes and eyesight; Seitz, *a*, chiefly pathol.; *b*, 2 brains; Skottsberg, *b*, 250–256, physical appearance; *c*, 92–93, ditto; *d*, 592–594, ditto; Topinard, 778–780, ditto; Virchow, *a*, 378, 388–390, ditto, skin, hair, etc.; Wilson, in Fitz-Roy, *b*, 142–147, Alacaluf or Yahgans, various observations; Zampa, 363–366, pulse, color of skin, hair and eyes, other observations.

(*b*) Chonos. Cf. references passim in Introduction, pp. 41–43.

(*c*) Yahgans. Bove, *a*, 790–791, physical appearance; ditto in *b*, 133–134, *c*, 125–126, and *d*, *Arch.*, 288–290; Th. Bridges, *a*, Fr. tr., 173, pathol.; *d*, 288–289, anat.; *h*, 206, physical appearance; *j*, 317, pathol.; Coriat, psychoneuroses; Furlong, *n*, footprints and hand tracings; Galippe and Hyades, *e*, dental system; Hahn, *a*, reproduction; Hyades, *f*, hygienic and medical notes; *n* and *o*, pathol.; *p*, 328–329, 339, physiol. and cerebral pathol.; *q*, 105–161, various observations on living subjects; 167–221, physiology; 222–236, pathology; Chr. Jakob, 65–67, 1 brain; ten Kate, 1 brain, various anat. notes; Martial, 186–187, physical appearance; Mondière, sexual anat. (quoted also in Hyades, *q*, 153–154); Testut, myology, in Hyades, *q*, 60 104; Wilson, in Fitz-Roy, *b*, 142–147, Alacaluf or Yahgans, various observations.

(*d*) Onas. Coriat, psychoneuroses; Furlong, *k*, physical appearance; *n*, footprints and hand tracings; C. Gallardo, 109–117, physical appearance; Outes, *c*, color of skin and iris; Popper, *a*, 104 105, physical appearance; Segers, 59–60, ditto; Zampa, 363–366, pulse, color of skin, hair and eyes, other observations.

EXPRESSION OF THE EMOTIONS

For details see Coppinger, 50, Alacaluf; Hyades, *q*, 244–248, and Darwin, *c*, passim, Yahgans; C. Gallardo, 139–142, Onas.

Psychology is treated under Culture.

Résumés, general descriptions, various data, etc., based chiefly or wholly on the preceding original studies.

(*a*) Alacaluf. Bollinger, résumé of Seitz, *a;* Dabbene,* *b*, 208–213, excellent general treatment of subject; Dally, 622–623; Duckworth, 440, on brain, from Manouvrier, *c*, and Seitz, *b;* Garson, review passim of osteological evidence to 1885; Haddon, *a*, 55, 78, average cranial and nasal indices; Hennig, pelvis; Kollman, data from Böhr and Huxley; Laloy, *a*, résumé of R. Martin, *b;* R. Martin,* *b*, exhaustive review and in part restudy of all anatomical evidence to 1893; Ranke, 3d ed., II, 292–300, general treatment, based on Virchow and R. Martin; Reclus, XVIII, 763, tr., 446, stature; Rivet, 241, cranial; Sera, 192–205, skull height; Stratz, general treatment, based on Virchow and R. Martin; Turner, x, pt. 29, 21–26, review of osteol. evidence to 1884; Virchow, *a*, résumé of some of evidence to 1881; Waitz, general treatment, based on earlier sources.

(*b*) Chonos. Rivet, 258, cranial, based on Medina, *a*, and Flower; Sera, 185–186, skull height.

(*c*) Yahgans. Collignon, résumé of Hyades, *q;* Dabbene, *b*, 170–176, excellent general treatment of subject; Garson, review passim of osteological evidence to 1885; Haddon, *a*, 55, 78, average cranial and nasal indices; Hennig, pelvis; Hyades, *q*, review and in part restudy of osteological evidence to 1891; Keane, *a*, 345, and *d*, 304, stature; Laloy, *a*, résumé of R. Martin, *b;* Latcham, 277–278, cranial; Marchiafava and Carruccio (also quoted in Cojazzi, 18), résumé of Sergi, *a;* R. Martin,* *b*, exhaustive review of all anat. evidence to 1893; Ranke, 3d ed., II, 292–300, general treatment, based on R. Martin, *b;* Reclus, XVIII, 763, tr., 446, stature; Rivet, 241, cranial; Sera, 192–205, skull height; Sergi, *a*, review of osteological evidence to 1886–87; *c*, data from Sergi, *a* and *b;* Stratz, general treatment, based on Hyades, *q*, and R. Martin, *b;* Waitz, general treatment, based on earlier sources; Zur Anthr. d. Feuerländer, in *Globus*, 1892, LXI, 205, résumé of Hyades, *q*.

(*d*) Onas. Dabbene, *a*, 68–69; *b*, 220–223, excellent general treatment; Laloy, *b*, résumé of Hultkrantz, *b;* Latcham, 276–277, cranial; Rivet, 241, cranial, from Hultkrantz, *b;* Sera, 192–205, skull height.

LANGUAGES

For references on the linguistic relations of the Chonos and three Fuegian tribes to one another and to the Tehuelches and Araucanians see Introduction, and under Relations in Subject Bibliography.

LEXICAL SOURCES

Words, phrases, and sentences—independent and original sources.

(*a*) Alacaluf. For complete list of available original sources, see Introduction, pp. 10–11.

(*b*) Chonos. Estevan. (Cf. also Ferrufino.)

(*c*) Yahgans. Bove, *b*,* 171 words; *c*,* 187 words (167 words from Bove reprinted in Cora, 237–239); Th. Bridges, *a*, some words passim; *b*, some words passim; *f*, vocabularies; *h*, some words passim; *k*, many words passim; *l*,** about 32,430 words—by far the most important extant Yahgan dictionary; *p*,* great number of words passim; *q*; Cañas P., 387, some of words are original; Cojazzi, passim and especially 113–114; Despard, *a*,* over 1,000 words; *b*, about a score of words passim; Eizaguirre, 157–158, 166–167, respectively, 32 and 62 words and phrases; Fitz-Roy, *b*, 135–140, about 200 words (reprinted in Lacroix and Hyades, *q*); Furlong, *a*, 344, 1 word; *b*, passim and especially 132–133, about 10 words; *g*, 1 word; *o*, songs and speech; *p*, words; Hahn, *a*, 4–5 words; Hyades, *h*, many words passim; *j*, some words passim; *p*, a few words passim; *q*,** 208, words for colors; 265–270, about 200 words; 280–321, a very extensive vocabulary, the most important one published; 332–334, phrases and sentences; 321–332, passim; King, 444, 1 word; Lovisato, *a*, 20 words passim; *b*, some 35 words passim; *c*, several words passim; Martial, several words passim; Mission Terre de Feu, in *La Nature*, 310–314, 10 words passim; Noguera,* 254 words; Snow, *a*, vol. I, 326–327, 340, 5 words of doubtful value; *Voice of pity for S. Amer.*, 1859, VI, 21, 34 words, according to Hyades, *q*, 272; Spegazzini, *a*, 5, 7, 2 words; *c*, many words passim; *d*, 44 plant names passim; *e*,* a great many words and some phrases; *f*,* many words; Weddell, 173, 4 words, presumably taken from Yahgans; Whaits,* very extensive vocabulary.

In addition to the above may be mentioned the extensive vocabulary taken from the Rev. Th. Bridges' Yahgan translation of St. Luke's gospel, by Dr. Platzmann (1–98, 99–226), and a great many words which were gathered from Th. Bridges, *q*, or St. Luke's gospel, or both, by Adam, Ellis, Garbe and Müller (*b*) and published in their Yahgan grammatical treatises. See also the abundant Yahgan lexical material in the Rev. Th. Bridges' translations, *m*, *n*, and *o*, and in J. Williams, *b*, and a few further words in Ellis (first draft of Luke, I, 1–13, and Yahgan letter).

(*d*) Onas-Shílk'nam. Arctowski,* 139 words, phrases and sentences; Beauvoir, *a*,* 7–8, 41 words; 9–35, 39–59, 1,876 words, 76 sentences and phrases, some additional words, 132 proper names; *b*,** 15–17, 103 words; 19–76, 109–161, more than 4,000 words; 79–104, 1,400 sentences; 163–170, more than 400 proper names, with meaning of 85 of them; 171–173, 211 words, apparently Shílk'nam; 195–196, numerals and cardinal points; 220–225, many local names; Becerra, "un estenso vocabulario"; Lucas Bridges, *a*,** "algunos miles"; Th. Bridges, *s*, about 1,200 words, some perhaps Mánekenkn; Cojazzi, some words passim, and especially 28–31; Furlong, *d*, about 15 words passim, and especially 225; *g*, 11 words passim; *k*, 94 words and expressions; *m*, words for "bow," etc.; *o*, songs and speech; *p*, words passim; C. Gallardo,* a great many words passim, and especially 359–393; Lehmann-Nitsche, *e*, vocabulary, of which 63 words are published in Lehmann-Nitsche, *d;* Lista,* *b*, 34, 56, 82, in all 31 words; 144–145, 86 words largely and perhaps entirely Mánekenkn; Lovisato, *a*, 1 word; O. Nordenskjöld,* *e*, 140 words and phrases; Outes, *b*, 5 words; Segers, 69, 70, 77–79, several words; 80–81, vocabulary of 91 words, of which 10 at least are Mánekenkn, and some Yahgan; Spegazzini, *a*, a few words passim, of which one at least appears to be Mánekenkn; *d*, 9 plant names passim; *e*,* a great many words and some phrases; Tonelli, in Cojazzi, 95, 39 words, mostly kinship terms; 102–104, 90 words and phrases, apparently Shílk'nam; Wilkes, *a*, 2 words of doubtful value, probably not Shílk'nam, but Mánekenkn.

(*e*) Onas-Mánekenkn. Banks, 2 words; Lucas Bridges, *b*,** vocabulary, of which 97 words are published in Lehmann-Nitsche, *d*, 242–276; Th. Bridges, *l*,* 500–600 eastern Ona words; *s*, perhaps Mánekenkn; Furlong, *k*,* 6 words; C. Gallardo, 365, 373, 5 (7) eastern Ona words; Lista,* *b*, 144–145, vocabulary of 86 words, largely, and perhaps entirely, Mánekenkn; Segers,* 70, 77–79, 80–81, 10 at least of Segers' words are Mánekenkn; Spegazzini, *a*, 1 at least of the 6 Ona words seems to be Mánekenkn; *e*, very probably Mánekenkn in part at least; Wilkes, *a*, vol. I, 118, 1845 ed., I, 115, 2 words of doubtful value, taken probably from Mánekenkn.

The Hauss vocabularies in Cojazzi, 102–104 of 90 words, and Beauvoir, *b*, 171–173, of 211 words, are, to judge by Mr. L. Bridges' list, Shílk'nam, not Mánekenkn.

Some of the foregoing original lexical material has been utilized or reprinted in the following papers:

(*a*) Alacaluf. Beauvoir, *a*, 7–8, and *b*, 15–17, 103 words in latter and most of 41 in former from Hyades, *q*, and Fitz-Roy, *b;* Brinton, *c* and *d*, 21 words from Fitz-Roy, *b; e*, 22 words from La Guilbaudiere; Cojazzi, 16–17, 40 words from Beauvoir, *a;* Dabbene, *b*, 215, stray words; Roussel.

(*b*) Yahgans. Beauvoir, *a*, 7–8, and *b*, 15–17, respectively, 41 and 103 words from Hyades, *q*, and Fitz-Roy, *b;* Benignus, 243, 5 words from Bove; Brinton, *c* and *d*, 21 words from Fitz-Roy and Th. Bridges; Cañas P., 387, a few words, some of them borrowed; Cojazzi, 16–17, 40 words from Beauvoir, *a;* Colini, some words passim; Dabbene, *b*, a few words passim; Outes, *d*, 137, 3 pronouns.

(*c*) Onas. Brinton, *e*, Segers' list reprinted almost in full; Cañas P., 387–392, words from Beauvoir, *a;* Cojazzi, 16–17, 40 words from Beauvoir, *a*, and Borgatello; Dabbene, *b*, a few words passim; Grasserie,* many words; Lehmann-Nitsche,** *d*, 242–276, Ona equivalents for 152 words, important comparative glossary compiled from Lista, *b*, Segers, O. Nordenskjöld, *e*, Beauvoir, *a*, C. Gallardo, and Lehmann-Nitsche, *e;* Outes, *d*, 133, 3 pronouns.

GRAMMATICAL SOURCES

(*a*) Alacaluf. None extant. Cf. Vargas Ponce, *b*, 27, and Spegazzini, *c*, comments under names in Author Bibliography.

(*b*) Chonos. Estevan.

(*c*) Yahgans. The most important is Th. Bridges,** *p*. Other valuable grammatical studies based chiefly on Th. Bridges, *q*, are Adam* (see also résumé of same in Mitre, I, 168–172), Ellis,* Garbe,* and probably Müller,* *b*. The grammatical material in Hyades, *j*, and *q*,* 321–332 (cf. also *q*, 214–218, 335–337), and in Spegazzini, *c** (see also résumé in Mitre, I, 175-176) and *f** (published in full in Mitre, I, 179–189), are largely based on information given by the Rev. Mr. Bridges. Some few notes on Yahgan morphology are given in Th. Bridges, *h*, 211–212 and *k*, 236. The earliest published data on Yahgan grammar are, as far as I am aware, those in Despard, *b*, 698.

The grammatical notes in Cañas P., 384–387, Dabbene, *b*, 200–201, Darapsky, *a*, *b*, and Fernández are derived from the foregoing sources.

(*d*) Onas. A few scattered notes on Ona grammar are available in Cojazzi,* 93–94 (conjugation of verb "to love"), Beauvoir,* *b*, 4–9 and especially passim in frasario 79–104, and C. Gallardo,* 359–393 passim. See also Segers, 78–79. On Ona pronunciation, cf. Beauvoir, *a*, 60, and especially *b*, 1–4.

TEXTS

(*a*) Alacaluf. Xikora,* catechism or prayer book (in preparation).

(*b*) Chonos. Ferrufino, "decem Dei mandata & solemnes Christianorum preces, ac formula(m) detestandi peccata;" Estevan,* "Doctrina Christiana . . . y algunas Platicas de los principales Mysterios."

(*c*) Yahgans. The most important are Th. Bridges, *m*,* St. Luke's gospel; *n*,* Acts of the Apostles; *o*,* St. John's gospel. Dr. Ellis prints a Yahgan letter, and ch. I, 1–13 from the first unpublished draft by the Rev. Th. Bridges of St. Luke. Dr. Platzmann reprints the parable of the sower and the Lord's prayer from Th. Bridges, *m*. See also J. Williams, *b*, and Lord's Prayer . . .

(*d*) Onas. Beauvoir, *a*, 36, Lord's prayer; *b*,* 77, Lord's prayer and Angelical salutation. The version of the Lord's prayer in *b* differs considerably from that in *a*.

GENERAL REMARKS ON LANGUAGES

(*a*) Alacaluf. See references in Introduction, pp. 22–29. Cf. also Th. Bridges, *b*, Apr. 1, 1880, 75—the Alacalufan reminded him of Welsh; Topinard, 774–775; Seitz, *a*, 185.

(*b*) Chonos. See references in Introduction, pp. 34–41.

(*c*) Yahgans. See ditto, p. 4. Also: Bove, *a*, 800; *b*, 142–143; *d*, *Arch.*, 297–298; *e*, 159; Th. Bridges, *e*, 331; *r*; Brinton, *e*; Chamberlain, *a;* Clark; Dabbene, *a*, 66; *b*, 200–202; Denucé; Hestermann, *a;* Hyades, *p*, 339–340; Lafone Q., *a*, 525–526; *b;* Lovisato, *b*, 131–132; Martial, 129, 208; Outes, *d*, 137; Spegazzini, *h*.

(*d*) Onas. Beauvoir, *a*, 60; Th. Bridges, *b*, 1880, 75; 1884, 223; 1886, 33; *e*, 332; *r;* Chamberlain, *a;* Dabbene, *a*, 68; *b*, 267–269; Fitz-Roy, *a*, 121–122; Holdich, 160; Holmberg, *a*, 51; Hyades, *l*, 718; *q*, 11–12; Lista, *b*, 120, 126; Lovisato, *b*, 131–132; Outes, *d*, 133; Segers, 77–79; Spegazzini, *a*, 17; *g; h;* Willems, *d*, 246–247.

Most of the data of any value from the foregoing general remarks have been quoted or utilized in the Introduction and section on Relations in the present work.

Culture

RELIGIOUS CULTURE

The term Religious Culture is used in the broadest sense merely for convenience in classification, and not with the intention of implying that all the beliefs and practices included under it are of a strictly religious nature. The line of demarcation between the religious and secular in primitive culture is at best a hazy one, and has to be shifted to suit the varying definitions of religion. The difficulty of drawing the line in Fuegia is, moreover, greatly augmented by the meagerness of our knowledge of the natives. Hence it has been thought best to group under the same heading many beliefs and practices which may have only a remote bearing on or affinity with religion properly so called.

For purposes of classification we shall take up first those beliefs and practices which imply an attitude of *propitiation* toward supramundane *beings*, and secondly, those from which, so far as our present knowledge goes, this element of propitiation is lacking. The first we shall call Religious Culture Proper; the second, Quasi-Religious Culture.

Religious Culture Proper

Sources

(*a*) Alacaluf.—Bougainville, 2d ed., I, 294; Cojazzi,* 124–125; Fitz-Roy, *a*,* 190–192, 194; *b*, 142; La Guilbaudiere, 3; King, 227; Marcel,* *a*, 495–496; *c*, 110–111; Meriais, 391; Skottsberg, *b*, 257–258, 271; *c*, 98–99; *d*, 595; Vargas Ponce, *b*, 25.

(*b*) Yahgans.—D'Arquistade, in Martial, 269; Benignus, 243; Bove,* *a*, 800-801; *b*, 142–143; *c*, 135; *d*, *Arch.*, 297–298; *e*, 159; Th. Bridges, *a*,* Fr. tr., 176, 181–182; *e*, 332; *h*,* 206–207; *i*,* in Hyades, *q*, 253, 255–256; *k*,* 236–237; Despard,* *b*, 698, 717, 746; Furlong, *b*, 137; *j;* Grubb, 139; Hyades, *p*, 332–333; *q*,* 253–257, 280–281; Lovisato,* *b*, 149–150; Martial,* 207–8, 211–212; Payró, 184–186; Spegazzini,* *a*, 12, 15–16.

(*c*) Onas.—Barclay, *a*, 77; *b*, 104; Bastian, I, 18, probably Onas; Beauvoir, *a*, 6; *b*,* 165, 207, 210, 217–220 and passim; Benignus, 233; Cojazzi,* 38, 71–72, 76, 86, 90–91; Dabbene,* *a*, 74–76; *b*, 269–270; Furlong, *d*, 228; *k;* C. Gallardo,* 299, 319, 321, 324–327, 339–341; Lista,* *b*, 130, probably Mánekenkn; Rousson-Willems, *a*, 181; Segers, 65–66; Terrien, 332.

(*d*) FUEGIANS.—Ball, 261; Darwin, *a*, 1871 ed., 214–215; Fitz-Roy, *a*, 179–181.

Based on the foregoing: Cañas P., 375–376; Dabbene, *a*, 64; *b*,* 202–204; Garson, 145; Lang, 174–175, 187 and passim; Outes, *d*, 134, 139; W. Schmidt, *a*, 103, tr., 145; Westermarck, II, 681–682.

SUPRAMUNDANE BEINGS

A. *Alacaluf.*—Admiral Fitz-Roy (King, 227) put a watch to the ears of some natives met in Otway Water. "I pointed to the watch," he says, "and then to the sky; they shook their heads and suddenly looked so grave, that from their manner in this instance, and from what I could understand by their signs, I felt certain they had an idea of a Supreme Being." Pointing, signaling or looking toward the sky in a more or less reverential manner is mentioned by various other observers (Vargas Ponce, *a*, 351; *b*, 25; Duclos-Guyot, *b*, 678; King, 314–315, 319; Meriais, 391; Hanaford, 210–211; Fitz-Roy, *a*, 190); for instance, one of the natives met by Lieut. Cevallos, after gazing in a looking-glass for some time, "señaló hácia arriba, como diciendo que aquello era cosa del Cielo" (Vargas Ponce, *b*, 25). These incidents are interesting and to a certain extent suggestive, but the inferences of Admiral Fitz-Roy and Lieut. Cevallos are, to say the least, hazardous. The former, happily, gives more concrete data in his narrative of the second *Beagle* expedition.

He was told by York Minster, one of his Alacaluf protégés, that "a great black man is supposed to be always wandering about the woods and mountains, who is certain of knowing every word and every action, who can not be escaped and who influences the weather according to men's conduct." "In woods of my country," said York, "some men go about alone; very wild men—have no belly, . . . live by stealing from other men." One of these wild men was caught in the act of stealing some birds that had been cached by York's brother. The brother killed the thief on the spot with a stone, though afterward he repented of the murder. But, added York, "rain come down—snow come down—hail come down—wind blow—blow—very much blow. Very bad to kill man. Big man in woods no like it, he very angry." York "told the whole story in a very low tone of voice, and with a mysterious manner; considering it an extremely serious affair" (Fitz-Roy, *a*, 180; see also Darwin, *a*, 1871 ed., 215).

Admiral Fitz-Roy also states that "if anything was said or done that was wrong, in their [that of the 3 Alacaluf and 1 Yahgan taken to England] opinion it was certain to cause bad weather. Even shooting young birds, before they were able to fly, was thought a heinous offense" (Fitz-Roy and Darwin, ibid.). No mention, however, is here made of any supernatural being.

The above account is partially corroborated from two independent sources.

(1) Admiral Fitz-Roy was told by Capt. Low that the West Patagonian Channel natives, designated Chonos by Admiral Fitz-Roy, but more properly of Alacalufan stock, believed in "an evil spirit, called Yaccy-ma, who they think is able to do all kinds of mischief, cause bad weather, famine, illness, etc. He is supposed to be like an immense black man." They also believed, according to Capt. Low, in a "good spirit whom they call Yerri Yuppon, and consider to be the author of all good: him they invoke in time of distress or danger" (Fitz-Roy, *a*, 190; cf., *b*, 142).

(2) According to recent studies by the Salesian fathers, the Alacaluf "believe in an invisible being called Taquàtu, whom they imagine to be a giant who travels by day and night in a big canoe, over the sea and the rivers, and who glides as well through the air over the tops of the trees without bending the branches. If he finds any men or women idle or not on the alert [*disoccupati o distratti*] he takes them without more ado into his great boat and carries them far away from home. It is at night particularly that the Alacaluf fear to meet this terrible being" (Cojazzi, 124).

There seems to be no sufficient ground for questioning the correctness in the main of the preceding statements. They are derived from good first-hand sources. They are from independent observers, and in their chief lines are in agreement. Moreover, such a dualistic conception is very common among the aborigines of southern South America and elsewhere. The anthropomorphic "black giant" is a common enough creation of very primitive man, while the contrast between the active evil spirit and the remote inactive good spirit occurs the world over.

It is true both the Rev. Mr. Bridges and Dr. Hyades deny that the Fuegians believe in any superior or quasi-supreme beings, and Capt. Martial found the Fuegians to have few scruples about killing nestlings (Martial, 212); but it needs to be borne in mind constantly that these writers were authorities on the Yahgans, not on the Alacaluf.

Granting, however, the facts, what interpretation should be given them? Mr. Spencer (Lang, 174) and Prof. Westermarck (II, 681–682) summarily dismiss the giant black man as a weather doctor. It is of course possible that he was, but there is no adequate evidence to show this, unless one be ready to draw this inference from the fact that he controlled, among other things, the elements. See also the arguments against this hypothesis in Lang (174–175).

Mr. Lang went to the other extreme in ranking the black giant among the ethical Supreme Beings (174, 187). Ethical to some extent he certainly seems to be, but hardly supreme, notwithstanding his omniscience and power, for no creative function is attributed to him, and besides the evidence at hand apparently shows him to be the evil god in the Alacalufan dualistic system. He is pretty clearly the same as Capt. Low's Yaccy-ma, and probably identical with Taquàtu. Father W. Schmidt more guardedly and probably more correctly calls the black giant "a superior being who watches over moral conduct" (*a*, 103, tr., 145).

Alacalufan dualism, therefore, appears to include an inactive benevolent Deity, who is not invoked except in extremes, "in distress and danger," and an active and alert malevolent deity, who to some extent at least is the guardian of the moral law.

It is likely enough that the Alacaluf believe in other spirits and in ghosts (cf. Fitz-Roy, *a*, 194; Skottsberg, *d*, 595); but we have no very definite information on this point.

B. Chonos.—From some of the rites and customs to be mentioned later we may probably infer that the Chonos had a belief in spirits and ghosts, but explicit data are wanting.

C. Yahgans.—The Rev. Mr. Bridges repeatedly stated that the Yahgans have no Supreme Deity, God, or Creator, nor any word in their language for such (*a*, Fr. tr., 181; *h*, 206; *i*, in Hyades, *q*, 253; *k*, 236–237). A negative is notoriously risky where there is question of a savage's higher religious beliefs, but on the other hand the testimony of one who studied the Yahgans so long and so well can not be waived lightly. The Rev. Mr. Bridges, however, does not seem to have had intimate personal knowledge of the Yahgan initiation rites, and it is just possible that back of them was, as in other parts of the world, a higher esoteric theology. Moreover, he apparently was loath to have his neophytes speak of their quondam religious beliefs (Payró, 184–185).

The Rev. Mr. Despard, too, stated explicitly that the Yahgans had no God (*b*, 698, 746), but added the interesting remark that the Yahgan "supposes the sun and moon, male and female, to be very old indeed, and that some old man, who knew their maker, had died, without leaving information upon this subject. Hence the ignorance of the present generation" (*b*, 698).

Capt. Bove mentions (*a*, 800; *b*, 142; *c*, 135; *d*, *Arch.*, 297; *e*, 159) both a good and an evil deity among the Yahgans, but no details are given about the "Dio benevolo" except that he, like the evil spirit, is neither respected nor feared. Whether these two spirits or gods are dominant ones corresponding to Yerri Yuppon and Yaccy-ma among the Alacaluf, or are only two of the many lower good and evil spirits that are spoken of by Admiral Fitz-Roy (*a*, 179), is hard to say. The "dio maligno" Curspic sends wind, rain, and snow, and tows behind him the condemned souls (Bove, *a*, 800–801; *b*, 142–143; *c*, 135; *d*, *Arch.*, 297–298; Lovisato, *b*, 149). The term *curspic*, *cashpik*, etc., is used in a generic sense by Mr. Th. Bridges (*a*, Fr. tr., 181; *e*, 332; *i*, in Hyades, *q*, 255; *k*, 237) and Dr. Hyades (*q*, 255) for malevolent spirits who dwell in forest caves and send sickness or death. Bad, disagreeable and eccentric men are called by the same name. Another evil spirit, Lucooma, presides over the tides and whirlpools or whirlwinds (Th. Bridges, *a*, Fr. tr., 181; Lovisato, *b*, 149–150; Spegazzini, *a*, 16).

When a man dies, the natives have been heard at times to say "Un tel a été pris par Gopoff," an evil spirit (Martial, 212). The medicine-men address a mysterious being called Aïapakal or Yahpahchel, the son of a deceased medicine-man, and receive from a spirit called Hoakils or Hvachiella power over life and death (Th. Bridges, *a*, Fr. tr., 182; *i*, in Hyades, *q*, 256; *k*, 238). The spirits who were evoked during the boy initiations were believed in only by the women and children (cf. infra, under Initiations). There seems, too, to have been a certain fear of ghosts (cf. infra under Death and Burial).

D. Onas.—There is no evidence for an Ona belief in anything like a Supreme Deity. Whether or not further information regarding Ona boy initiations will show the presence of a secret higher belief, it would be idle to speculate. Father Beauvoir's repeated inquiries respecting a Supreme Deity elicited only negative answers (*b*, 210); the mission Onas use the native word *Jhow'n* (=medicine-man) for God, but few will agree with Father Beauvoir in tracing any verbal kinship with the Hebrew Jehovah or Yahweh (*b*, 219). Messrs. Rousson and Willems attribute to the Onas a belief in a spirit called Waliche or Walichu, to whom the natives attribute both good things and bad (*a*, 181); but these explorers hardly had opportunities to gather dependable information on Ona religious beliefs, and, moreover, Walichu is strongly suggestive of Patagonian origin.

Both Sr. Lista (*b*, 130) and Dr. Segers (65) mention an evil spirit who enters the body and sends illness; he also sends wind, rain, etc. Some good and evil spirits are believed in by both the men and the women (Dabbene, *a*, 76; *b*, 270; Beauvoir, *b*, 218; Cojazzi, 38). The dead are feared (C. Gallardo, 321), especially dead witch-doctors, who have power even after their death (Cojazzi, 38, 71–72; C. Gallardo, 299, 341). Many natural objects, as mountains, sun, moon, stars, etc., are believed to have once been men, and mountains at least are feared and respected. Finally we may mention the initiation spirits believed in only by the women and children (cf. infra, under Initiations), and the mythological beings, especially the myth-hero Kuanip (cf. infra, under Mythology).

TOTEMISM, ANIMISM, FETISHISM

Among the Chonos, Alacaluf, and Yahgans there is not the slightest trace of either present or former totemism in any of its many forms. Nor is there any tangible indication of it among the modern Onas. If it be considered proven that the older Patagonians were totemists (cf. Outes, *a*, 251–252), there might be some reason for suspecting that the Onas, too, were formerly such. But the whole question is too obscure in the present state of our knowledge.

Animism, in the sense of the personification of nature, is found, but only in a mild form, among the Yahgans and Alacaluf. Among the Onas there is a marked tendency to look upon natural objects as having once been men.

The Yahgans carried around with them red pebbles when they traveled inland (Hyades, *q*, 280–281), and the Onas treasure pieces of stone shaped naturally something like an arrowhead (Cojazzi, 86). Packets or pouches containing human hair are carried by the Alacaluf sometimes (Fitz-Roy, *a*, 192; Skottsberg, *c*, 98–99; *d*, 595). These objects appear to be more than trinkets or curios. The packet given to Mr. Low was supposed to bring fair wind (Fitz-Roy, *a*, 192). At any rate they are of uncommon use. They might be called fetishes according to some definitions of fetishism.

ANCESTOR WORSHIP

Traces of ancestor worship are found among the Yahgans and Onas at least. See below under Prayer. It takes the form chiefly of invocation of deceased medicine-men. The fact that the leather pouch found by Dr. Skottsberg, which was worn around the neck of an Alacaluf, contained the hair of a dead person might perhaps be interpreted as evidence for the existence of the rudiments of ancestor worship among the Alacalufan tribe. The possessor, however, readily bartered the pouch for a trifle (Skottsberg, *d*, 595).

It may be noted in passing that the absence of totemism and the very rudimentary development of animism, fetishism, and ancestor worship among the Fuegians are also characteristic of many of the lowest Indo-Oceanic peoples (cf. Mills).

FUTURE LIFE

A. *Alacaluf.*—According to the Salesians, the Alacaluf "believe that the good after death go to a delightful forest where they eat to satiety what they liked in life: fish, sea food, seals, birds, etc.; while the wicked are plunged into a deep well from which they can not escape" (Cojazzi, 125). The use of the amulet above mentioned and the custom of burying bows and arrows, etc., with the dead (cf. infra, pp. 161–162) may also be taken as indications of belief in survival. Alacalufan evidence on this point is extremely meager.

B. *Chonos.*—No available data at all.

C. *Yahgans.*—Authorities differ. Some would have it that the Yahgans lack all belief in survival after death (Th. Bridges, *c*, 332; *h*, 206; *i*, in Hyades, *q*, 253; Hyades, *p*, 332; *q*, 257; Lovisato, *b*, 149; Furlong, *b*, 137; *j*), and a fortiori no idea of recompense or punishment in the other world (Th. Bridges, *a*, Fr. tr., 181; *k*, 239). Other authorities state definitely that the Yahgans believe the soul remains near the grave or wanders over the woods and mountains, especially at night (Bove, *a*, 800; *b*, 142; *c*, 135; *d*, *Arch.*, 297; Spegazzini, *a*, 16; Dabbene, *b*, 203), happy or unhappy, according to moral conduct in life (Bove, ll. c. supra).

The Rev. Mr. Bridges, Dr. Hyades, and Dr. Lovisato give other testimony apparently contradicting their denials mentioned above. Dr. Hyades states (*p*, 332) that dead criminals haunt the living; Dr. Lovisato, curiously enough, after denying any definite belief in a future life, adds that after life souls wander through the woods (*b*, 149); the Rev. Mr. Bridges says in an earlier paper (*a*, Fr. tr., 181) that the Yahgans believe in the immortality of the soul, and in a later paper (*h*, 206) that they at least speak of "exhalaciones como de los espíritus errantes de los suyos," and that they have a word for death, *cagagulo*, which means "subir y volar" (cf. also *a*, Fr. tr., 181).

Perhaps the most interesting statement regarding Yahgan belief in survival is that which the Rev. Mr. Despard made (*b*, 698): "He [the Yahgan] thinks, when a man dies, his breath goes up to heaven; but for what he has no notion. . . . He denies the upward ascent of breath to other animals."

Weighing all the above evidence, it seems fairly well established that the Yahgans believe in survival, but whether they have any definite concept of immortality or of future recompense is at best very doubtful.

D. Onas.—Of the Ona belief in survival there seems to be no well-grounded doubt. It is attested by Sr. Lista (*b*, 130), Dr. Gallardo (319, 325–327, and passim), Mr. Barclay (*a*, 77), Dr. Dabbene (*b*, 269), Dr. Cojazzi (38, 72, 76), and Father Beauvoir (*b*, 165, 217–219, and passim). The shades of the dead wander through the woods (C. Gallardo, 336). The Onas have a word for soul, *men* (Cojazzi, 76), *m'ehm* (Dabbene, *b*, 269), *meh'n* (Barclay, *a*, 77), *mehn* (C. Gallardo, 327, 336). The dead know what is taking place on earth, but take no active part in human affairs (Barclay, *a*, 77; Dabbene, *b*, 269; C. Gallardo, 319, 327), except dead witch-doctors (Cojazzi, 72; C. Gallardo, 299, 341). The dead are feared by the Onas (C. Gallardo, 322). According to Dr. Cojazzi (76) the departed are happy or unhappy in accordance with their conduct on earth, but this is denied by Dr. Gallardo (326).

The Onas also believe that many animals and birds and many natural objects, as mountains, stars, sun and moon, trees, etc., were once men or women (C. Gallardo, 326, 338; Beauvoir, *b*, 165, 207, 217–219; Cojazzi, 86; Furlong, *k*). This belief colors much of their folklore. There is no evidence of a belief in reincarnation.

BELIEF AND MORALITY

The link between religion and morality among the Fuegians is apparently, as far as our evidence goes, a weak one. Most authorities blankly assert or clearly imply that no such link exists at all (cf., e. g., for the Yahgans, Th. Bridges, *k*, 239; Despard, *b*, 698; for the Onas, C. Gallardo, 324, 326). What, if any, religious significance is attached to their numerous taboos is uncertain in most cases from the information at present available. According to some authorities (cf. supra, under Future Life) the future life is happy or unhappy, in accordance with moral conduct on earth, but these statements need confirmation, and, further, we need detailed data as to whether future happiness and unhappiness follow automatically and impersonally or as a recompense bestowed and a retribution meted out by a personal supramundane being.

Attention, however, may be called to the data furnished by Admiral Fitz-Roy and his informant, Capt. Low (cf. supra, under Supramundane Beings). Taking the facts as related by them, we have here a higher being, albeit apparently an evil one, who punishes murder. Admiral Fitz-Roy also states (*a*, 179) that the Fuegians believe "that the evil spirit torments them in this world, if they do wrong, by storms, hail, snow, &c." Perhaps, too, the fact that after the murder of Capt. Fell and his party the Yahgans believed that the moon turned a blood-red color may have some bearing on the point in question (Grubb, 139).

CULT

By cult is here meant all prayers and rites directed to supramundane beings. Nonmoral prohibitions, supposed to emanate from such beings, are classed as negative cult. Such prohibitions can not always be clearly distinguished from moral precepts on the one hand and mere taboos on the other.

Prayer

The Fuegians pray little, so little, in fact, that they are frequently reported not to pray at all. Traces, however, of prayer are found here and there in the Fuegian sources.

A. Alacaluf.—Yerri Yuppon was invoked in times of distress or danger (Fitz-Roy, *a*, 190). Capt. Low on three different occasions witnessed the following ceremony: After a period of famine, food was finally obtained, but before partaking of it an old man gave each native a portion, "repeatedly muttering a short prayer, and looking upward;" all kept silence during this ceremony (Fitz-Roy, *a*, 190–191, 195; Darwin, *a*, 1871 ed., 213–214). Capt. Low, however, did not speak the natives' language, so there remains some uncertainty as to whether the old man's muttered words were really a prayer or not.

B. Chonos.—No data available.

C. Yahgans.—Dr. Spegazzini states (*a*, 12) that at the death of a Yahgan the relatives stay around the grave all day; when dark comes, "diciéndole que son sus amigos, y que su espíritu no les haga ningun daño." The Rev. Mr. Bridges also describes what may be prayer: The medicine-men "font de fréquentes incantations, dans lesquelles ils paraissent s'addresser à un être mystérieux, nommé Aïapakal; ils disent tenir, d'un esprit appelé Hoakils, un pouvoir surnaturel de vie et de mort" (*i*, in Hyades, *q*, 256; cf. also Bridges, *k*, 238).

D. Onas.—When ordinary means of influencing the weather fail, the Onas, especially the witch-doctors, invoke the aid of Muyée or Moice and Caucoshl or Kan-Kosl, two deceased doctors who had and who still have great power over some of the elements (C. Gallardo, 340–341: Cojazzi, 71).

Sacrifice

That the Canoe Indians, the Yahgan in particular, have a kind of sacrifice is attested by at least three independent authorities. When the natives are in great danger at sea they are said to throw an offering overboard, a dog or child, according to the Rev. Mr. Bridges in his earliest paper (*a*, Fr. tr., 181), an infant, according to Dr. Fenton, a long resident of Punta Arenas (Ball, 261),[1] or a piece of fish, etc., according to the Lawrence brothers (Furlong, verbal communication), in order to appease the anger of Lucooma, the spirit of the tides and whirlwinds (Bridges) or the spirit of the tempest (Furlong). While this rite has not been actually witnessed by any of the above authorities, it is said to be well attested.

The Yahgans fear whirlpools (Th. Bridges, loc. cit., caused by Lucooma; Lovisato, *b*, 149–150), and, according to Dr. Spegazzini (*a*, 16), believe them to be caused by evil spirits, to appease whom they throw into the water coals and pieces of wood.

Oaths and ordeals

Capt. Martial relates an episode showing that the Yahgans may have some kind of oath (207–208), but our sources give no indication of the existence of anything like the ordeal.

Sacred objects

The Ona and Yahgan stone amulets and the Alacalufan pouch containing the hair of the dead person have already been mentioned (cf. supra, under Fetishism).

Capt. Steele (Skottsberg, *b*, 271) claimed to have found in the Baker Inlet district a circle of large stones. The circle was 8 meters in diameter and was paved with stones. Dr. Bastian (I, 18) was told by some colonists that they had found in Ona (?) territory an artificial mound on the platform of which were three figures made with bright stones, one figure representing a circle (the sun), the second a half moon, and the third a hand. Sr. Payró (184–185) was told of certain Yahgan idols. It is very doubtful, however, if any dependence at all can be put on the above accounts; so far at least as the Yahgans are concerned, the Rev. Mr. Bridges and others categorically deny the existence of any such materialization of belief.

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[1] Doctor Fenton had knowledge chiefly of the Alacaluf, and perhaps he should be understood to have had in mind this tribe rather than the Yahgan.

Capt. Low found somewhere in the West Patagonian channels a number of spears, arrows, and clubs stuck in the ground, and among them a large block of wood rudely carved in the shape of a man, with long red teeth and around the neck a halter of hide. This, he was told, was the native method of declaring war, and the figure represented their evil spirit (Fitz-Roy, *a*, 194; cf. a somewhat similar Araucanian method of declaring war, Rosales, *a*, vol. I, 147).

Negative cult

There are a great many things of a nonmoral nature which the Fuegians scrupulously avoid saying or doing for fear of evil consequences. In most cases the consequences are believed to follow automatically, as far as our information goes, a breach of the ban, and hence are provisionally classed under Taboos or Magic. Where, on the contrary, the consequences are explicitly regarded as inflicted by an angered supramundane being, the prohibitions are classed under Cult. A familiar example of such negative cult in the Judeo-Christian religion is the prohibition against taking the name of God in vain.

A. Yahgans.—The Kachpikh or malevolent spirits of the woodland caves are avoided lest they inflict illness or death (Hyades, *q*, 255). The Yahgan has a dread of Cushpeec and is loath to hear his name mentioned (Despard, *b*, 717; cf. also Furlong, *b*, 137). It is dangerous to name the dead (Th. Bridges, *a*, Fr. tr., 177).

B. Onas.—The Onas fear the mountains (Gunn, 326), who are deceased men, and who send storms on trespassers (Cojazzi, 90–91). The Onas respect and fear such natural objects as the mountains, the sun, moon and stars, lakes, woods, and do not speak badly of them nor stare at them too long; if you speak badly of a mountain in its presence, it will send rains and winds (C. Gallardo, 339–340).

There is no available evidence bearing on Alacalufan or Chonoan negative cult.

As in underdevelopment of animistic beliefs, fetishism, etc., so, too, in poverty of cult, the Fuegians resemble many of the lowest peoples in other parts of the world (cf. Mills).

QUASI-RELIGIOUS CULTURE

In the beliefs and observances thus far recorded there seems to be fairly clear evidence of religious elements. The beings believed in are supramundane and for the most part exert an active influence over man and nature. They are respected and feared and at times prayed to or propitiated by moral conduct and ritual observances. The element of coercion, more distinctive of magic, and that of automatism, more distinctive of taboo, are absent.

Of the beliefs and observances now to be listed, some and perhaps many may turn out on further investigation to be of a religious or propitiatory nature. Most of them, at any rate, have sufficient affinity or resemblance to religion to be classed under Quasi-religious Culture, and if one should prefer to adopt a more inclusive definition of religion they could be classed as clearly religious.

BIRTH CUSTOMS

The Ona mother in order to make her child robust brings in a great load of wood before delivery, according to Dr. Cojazzi (25), or after delivery, according to Dr. Gallardo (229). Among both the Onas and Yahgans the umbilical cord is cut with a piece of shell (C. Gallardo, 229; Hyades, *q*, 191), and the latter burned both the cord and the placenta (Hyades, *q*, 191, 194). One of Father Menendez' Chonos cut his hair to celebrate the birth of his child (González de Agüeros, 247).

The Yahgan baby is bathed in the sea shortly after birth (Bove, *a*, 794; *b*, 137; *c*, 129; *d*, *Arch.*, 293; *e*, 158; Th. Bridges, *a*, Fr. tr., 170; *h*, 208) to make it strong (Th. Bridges, *h*, 208; Hahn, *a*, 806), and the mother, too, goes through a series of sea baths (Hyades, *q*, 192–195). The Ona mother bathes (Cojazzi, 26; Beauvoir, *b*, 208), but according to Dr. Gallardo (229) only if she happens to be near the sea; the child is not bathed (Beauvoir, *b*, 208), but is massaged with white earth (Cojazzi, 26).

According to the Rev. Mr. Bridges (*a*, Fr. tr., 170), after the birth of a child both parents rest a week or two, while the Rev. Mr. Despard states (*b*, 698) that the father must sit still for three days, else the child will die. This looks very much like the couvade.

After the birth of a child certain food taboos are observed by the mother among the Onas (C. Gallardo, 229–230, 174; Cojazzi, 26; Beauvoir, *b*, 208; Dabbene, *b*, 257), and by both parents among the Yahgans (Th. Bridges, *a*, Fr. tr., 170; Martial, 197; Dabbene, *b*, 190). A Yahgan mother is considered unclean after delivery; she must abstain from marital intercourse for five or six months; the husband, too, is bound by a similar obligation, but not to the same degree (Hahn, *a*, 806; cf. also Hyades, *q*, 195).

Of Alacalufan birth customs we know nothing, and of Chonoan nothing beyond the point noted above.

INITIATIONS

Sources

(*a*) ONAS.—Barclay, *a*,* 74–76; *b*, 99–100; Beauvoir, *b*, 206–207; Cojazzi,* 31–38, 101–102 (Mánekenkn); Dabbene, *a*, 73–74; *b*,* 257–259, 269–270; Furlong, *d*,* 224; *g*, 7; *i*, 11; *k**; C. Gallardo,* 330–337; Holmberg, *a*, 57–58.

(*b*) YAHGANS.—Th. Bridges,* *a*, Fr. tr., 174–175; *h*, 208–209; *k*, 239–240; Hahn, *c*, 340; Hyades,* *q*, 376–377; Martial, 214.

Based on the foregoing: Dabbene, *b*, 191–192, 202; Krickeberg, 142; Outes, *d*, 140; H. Webster, 56, 176–177.

Our sole direct and first-hand source of information on the Yahgan boy initiations was the elder Mr. Bridges, as our main sources for Ona initiations are his sons, Lucas and William. Some of the Ona data have been independently verified by Prof. Tonelli from two natives at Rio Grande mission.

The initiation customs observed at present among the Onas and formerly among the Yahgans are very similar. In the earlier days, the tradition runs in both tribes, the men were under petticoat government; but they rebelled, adopted the initiation rites from the women, and created the masked spirits, all in order to keep the women in subjection. The adolescent boy is taken from his mother and obliged to fast and to undergo other physical and psychical tests. Endurance and stoicism, generosity, honesty, veracity, bravery, the duty of blood-revenge, observance of the marriage laws against incest and adultery, and other tribal virtues are solemnly inculcated. The grown men paint and dress up in masks to represent spirits, and proceed to terrorize the women and children and to test the courage of the boy candidate. Finally the boy, if found worthy, is told the truth about the supposed spirits and the purpose of the masquerading, namely, to keep the women in subjection, and he is threatened with dire punishment if he should ever reveal the secrets to the women or children.

Except for several minor details—the Ona masks, for instance, are of hide; the Yahgan of bark—the initiation rites in the two tribes are so similar[1] that there is a good probability of borrowing, as regards some at least of the elements. A detail in the Yahgan's tradition to the effect that they inaugurated the rites after the incursion of the Onas into the Beagle Channel district (Martial, 214) would perhaps suggest that the Yahgans rather than the Onas have been the borrowers; but the point is doubtful.

By the time of the French expedition in 1882–83, and even before, the boy initiations had fallen into desuetude among the Yahgans, but they still preserved a simpler puberty rite, including fasting and moral instruction, for the girls (Th. Bridges, *h*, 208; *k*, 240; Hyades, *q*, 377).

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[1] Even to the name of the large wigwam used for the rites, called *kina* by the Yahgan, and *haain* (Cojazzi, 35), *hin* (Furlong, *d*, 224), *jaind* (Gallardo, 331–332), *hine* (Furlong, *k*).

The Alacaluf, too, may have had initiation rites, but our evidence is not very solid. Labat (Marcel, *a*, 496; *c*, 110–111) speaks of seeing a young man in a hut alone, who was chanting and gesticulating. His body was whitened, and his head was adorned with two bird wings. He would not speak, although he was not a mute. Capt. King (314–315) found at Fortescue Bay about 80 natives gathered; one of the huts was closely guarded by a man who was not unlikely a witch-doctor; no one was allowed to enter, and a midshipman who, after a little coaxing, was permitted to put his head in, received a shower of ashes in his face. The natives' explanation that there was a woman in labor in the hut hardly agrees with the Fuegian delivery customs, nor does it account for the unusually large gathering of Indians. Large wigwams, similar to the Yahgan initiation *kinas*, have been found in Alacalufan territory (cf. infra, under Shelter).

Many of the West Patagonian Channel Alacaluf have one or more front teeth missing (Fitz-Roy, *a*, 197; Coppinger, 49, "in the male adult there is usually a front tooth missing;" Skottsberg, *b*, 252; *c*, 92). Dr. Coppinger adds: "As if knocked out designedly," but Dr. Skottsberg, who found the teeth missing more frequently among the older folks, the women especially, believed it due to accidents, to chewing tough skins, or to other employment (*b*, 252; *c*, 92).

The foregoing stray data may possibly be taken as indicative of initiation rites among the Alacaluf, but much more definite evidence is required.

TABOOS

A. Yahgans.—A girl after her first menstruation observes certain food taboos (Hahn, *a*, 804). The morning after first bridal intercourse the man bathes in the sea (Bove, *a*, 794; *b*, 137; *c*, 129; *d*, *Arch.*, 293), else the dogs would die (Lovisato, *b*, 150), but there is no taboo on marital intercourse during nursing time (Hyades, *q*, 195).

The custom of bathing before eating the first guanaco of spring (Cojazzi, 108) has in it an element of taboo and also an element of first-fruits sacrifice, without being clearly either. A person when present is never addressed by his proper name (Dabbene, *b*, 191). Cf. also Coriat, 206–207.

B. Alacaluf.—Perhaps the prohibition against shooting ducklings spoken of by Admiral Fitz-Roy (*a*, 180; Darwin, *a*, 1871 ed., 215) is of the nature of a taboo.

C. Onas.—Certain food taboos are observed, especially by the women and children (C. Gallardo, 174, 229–230; Cojazzi, 26). According to Dr. Holmberg (*a*, 58), after marriage, "los padres" [of the bride *and* groom ?] do not look at the groom if they meet him, but this needs confirmation. The Onas, according to Dr. Dabbene (*b*, 268), call one another when present by their proper names, but according to Dr.

C. Gallardo (355) this custom does not obtain except between intimate friends.

D. Chonos.—If a flock of parrots passes overhead, do not look, otherwise bad weather will follow (García, *a*, 21); do not throw shellfish on the fire, else the sea will become rough (García, *a*, 20). Do not throw shells into the water (Byron, *a*, 2d ed., 162).

For other taboos see under Birth Customs, Initiations, and Death and Burial.

DREAMS

A certain importance is apparently attached to dreams by the Yahgans and Alacaluf (Martial, 212–213; Darwin, *a*, 1871 ed., 215, 221), although Dr. Hyades denies this for the Yahgans (*p*, 338; *q*, 253). Cf. also Coriat, 206.

VARIOUS CUSTOMS

Lieut. Cevallos (Vargas Ponce, *b*, 29) reports seeing a dozen or more Alacaluf seated in a circle, chanting under a sort of choir leader, and from time to time pieces of meat were thrown into the fire; all this was gone through with profound respect. The custom of throwing some object into the fire in a solemn manner was also witnessed by Dr. Lucy-Fossarieu (173–174) and Capt. Martial (207–208) as an accompaniment, respectively, of Alacalufan mourning and the Yahgan "oath." When a Yahgan infant would not take the breast, the mother threw a few drops of milk into the fire (Hyades, *q*, 194). It would be interesting to know whether this custom has any sacrificial meaning, in the Cevallos case in particular.

Two other customs are noted by Byron. He describes (*a*, 145–146; cf. also A. Campbell, 61–62) a weird ceremony during which his Chonos sang themselves into a frenzy, cutting one another and carrying firebrands in their mouths. He was told by the Christian cacique, who was much offended, that at such times the Indians hear uncommon noises and see frightful visions. The devil, Byron was assured, was the chief actor on these occasions.

On another occasion Byron was severely rebuked for throwing limpet shells from the canoe into the water (*a*, 162–163).

Father García's Chonos blacked their faces with charcoal on entering the iceberg-strewn and snow-banked lagoon of San Rafael "to salute the snow, lest they die" (*a*, 14), and on another occasion one of them painted his face to bring good weather (*a*, 15).

Mrs. Hanaford's youthful informant told her (210–211) that on one occasion he saw some of his Indian captors, who were probably Alacaluf, climb a tree, then come down and violently throw sand and stones at the huts, and that on another occasion they ate pounded glass (?), pointed upwards, and after a few ceremonies buried a seal's tooth.

A curious Yahgan blood-revenge ceremony is described by the Rev. Mr. Bridges (*b*, Jan. 1, 1875, 13–14).[1]

In general it would seem that the Fuegian peoples are not ultra-superstitious. "Superstitions" exist, but apparently in moderate number only. One gets the impression that there is quite a considerable field of religious and quasi-religious culture among these secretive primitives that has been thus far very inadequately investigated.

MAGIC

Fuegian magic reaches its chief development in the realm of medicine (see infra). A few beliefs are, however, independent of curative methods. It is not easy, owing to the meagerness of our information, to distinguish clearly what may be magic from what may be mere secular practical science or religion proper.

Beliefs in mana, orenda, etc., are, as far as our evidence goes, quite wanting among the Fuegians.

The fear that an enemy may do them harm by getting possession of a bit of their hair was common to both the Chonos (García, *a*, 29–30) and the Fuegians (Beauvoir, *b*, 206; Cojazzi, 70–71; Dabbene, *b*, 204; Fitz-Roy, *a*, 138; King, 53, 313–314). The Yahgans, however, met in New Year Sound by Weddell (177) and at St. Martin's Cove by Ross (II, 307) made no objection to having their hair clipped off, and Capt. Martial states (188) of the Yahgans: "Ils ne font aucune difficulté pour laisser couper leurs cheveux." The Onas of the south, probably Mánekenkn, threw finger-nail parings into the fire (Lista, *b*, 128).

MEDICINE AND MEDICINE-MEN

Sources

(*a*) ALACALUF.—Bougainville,* 2d ed., I, 297–303; Vargas Ponce, *b*, 28.

(*b*) CHONOS.—García,* *a*, 37.

(*c*) YAHGANS.—Benignus, 240; Bove,* *a*, 795–796; *b*, 138–139; *c*, 130–132; *d*, *Arch.*, 294; *e*, 158; Th. Bridges, *b*, Mar. 1, 1873, 30; Jan. 1, 1875, 12; *i*,* in Hyades, *q*, 256–257; *k*,* 237–238; Coriat, 205; Despard,* *b*, 717, 698; Hyades, *p*, 333; *q*,* 235–236, 256–257; Martial,* 205–206; Spegazzini, *a*, 13.

(*d*) ONAS.—Andersson, 387; Barclay, *a*, 70; Beauvoir, *b*, 164–166, 208–209; Benignus, 233; Cojazzi,* 67–72; Dabbene, *b*, 259–260; Furlong, *d*, 225–226; *i*, 12; C. Gallardo,* 292–304; Holmberg, *a*, 59; Lista,* *b*, 130, probably Mánekenkn; O. Nordenskjöld, *h*, *Tour du monde*, 38.

(*e*) FUEGIANS.—Darwin, *a*, 1871 ed., 214–215; Fitz-Roy, *a*, 178–179, 186.

Based on foregoing: Dabbene, *a*, 63–64; *b*,* 193; Outes, *d*, 139; Cañas P., 361–362.

The Onas, according to Dr. Holmberg (*a*, 59) and Mr. Barclay (*a*, 72), and the Alacaluf, according to Vargas Ponce (*b*, 28), use certain plants for medicinal purposes. This, however, is denied by all other first-hand authorities who touch on the point.

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[1] A few other notes on Fuegian quasi-religious customs may be found in Bougainville (2d ed., I, 294); Bove (*a*, 800–801; *b*, 142–143; *c*, 135; *d*, *Arch.*, 297–298; *e*, 159), Th. Bridges (*a*, Fr. tr., 181–182; *e*, 332), Dabbene (*b*, 204, 269), Duclos-Guyot (*b*, 673), Fitz-Roy (*a*, 181, 191), Lovisato (*b*, 149–150), and Marcel (*c*, 110–111; *a*, 495–496).

The more common curative methods employed by the Chonos and Fuegians are massage, friction, anointing, sweating, and bathing. The medicine-men in their curative rites extract or vomit an arrow head or harpoon shank, a piece of wood, bone, or stone, or a pointed stick. Such objects are supposed to be the immediate cause of the disease, which, however, is sent by spirits over whom the medicine-men have power.

Among the Onas each clan or family has a medicine-man, while among the Yahgans nearly every older man was a wizard. Occasionally among both tribes an old woman exercised this office (Th. Bridges, *i*, in Hyades, *q*, 257; C. Gallardo, 298). The witch-doctors inspire a certain amount of respect and fear, but may at times be subjected to rather rude treatment.

The Rev. Mr. Bridges once observed a Yahgan witch-doctor dancing on hot coals (*k*, 238). According to Dr. Cojazzi (70–71) the Ona doctors sometimes make a cloak of human hair, which they use as a potent instrument for bullying and laying under tribute the members of the tribe. The wizards are often clever prestidigitators.

In addition to their power to send or cure sickness they may also have power over life and death and over the weather and the elements, and may possess the gifts of divination and prophecy.

DEATH, MOURNING, AND BURIAL

Sources

(*a*) Alacaluf.—Bougainville, 2d ed., I, 302; Duclos-Guyot,* *b*, 678; Fitz-Roy,* *a*, 181, 191; Marcel, *a*, 496; *c*,* 110–111; Skottsberg, *b*, 271–273; *d*, 595; van Speilbergen,* 1st ed., 34, and in de Brosses, I, 344, probably Alacalufan.

(*b*) Chonos.—Byron,* *a*, 90–92; A. Campbell,* 62, and in Prévost, XV, 388; Medina, *a*, 274.

(*c*) Yahgans.—Bove,* *a*, 798–800; *b*, 107, 141–142; *c*, 133–135; *d*, *Arch.*, 296–297; *e*, 159; Th. Bridges, *a*,* Fr. tr., 176–177; *b*, Nov. 1, 1875, 192, July 1, 1876, 151; *e*, 332; Coriat, 205; Despard, *b*, 698; Fitz-Roy, *a*, 179, 181; Furlong, *b*,* 133, 135–136; Hyades, *p*, 332; *q*,* 379–380; Lawrence, June 1, 1874, 92; Lovisato,* *a*, 199; *b*, 146–149; Marsh, *a*, 119–120; Martial,* 206–207; Mission Terre de Feu, 311; Spegazzini,* *a*, 11–12.

(*d*) Onas.—Barclay,* *a*, 76–77; Beauvoir,* *b*, 209–210; Benignus, 233–234; Cojazzi,* 72–75, 102 (Mánekenkn); Dabbene, *a*, 74; *b*,* 260–262; Furlong, *d*,* 226; C. Gallardo,* 317–323; Holmberg, *a*, 59; Lista, *b*, 55; O. Nordenskjöld, *h*, *Tour du monde*, 38; Segers,* 65–66, 75.

(*e*) Fuegians.—Darwin, *a*, 1871 ed., 214; Fitz-Roy, *a*, 177, 179.

Based on the foregoing: Lucy-Fossarieu, 173–174; Dabbene, *a*, 62–64; *b*,* 192–193; Outes, *d*, 135, 140; Cañas P., 362–365; Garson, 144–145; Penna, 203 and passim.

Mourning

Among the Yahgans and Onas mourning is expressed by (1) the tonsure; (2) scarification, but only by the widows or women among the Onas (C. Gallardo, 317; Segers, 75; Dabbene, *b*, 262); (3) painting, usually with black among the Yahgans (Th. Bridges, *e*, 332; Martial, 188; Furlong, *b*, 133), though sometimes with other colors, too (Th. Bridges, *h*, 209; Lawrence, June 1, 1874, 92), with red or black among the Onas (C. Gallardo, 149, 319–320; Cojazzi, 72, 74; Popper, *d*, 138). Mourning lasts for many months among both tribes—among the Yahgans sometimes two years (Th. Bridges, *a*, Fr. tr., 176), among the Onas sometimes two or even three years (C. Gallardo, 320; Barclay, *a*, 77).

Speaking of the Onas, Dr. Gallardo adds (318): "Creo que debemos ver en estas demostraciones un simple testimonio de afecto hacia el muerto y no un medio de propiciarse su buena voluntad." The point, however, is worthy of further investigation.

The Alacaluf met by Duclos-Guyot at Fort Famine painted themselves black as a sign of mourning (*b*, 678).

Burial

A. Chonos and Alacaluf.—Among the Chonos and Alacaluf cave burial is the common form. This use of caves may be due, as Dr. Dabbene suggests (*b*, 214), to the difficulty of digging in the hard, rocky ground of western Fuegia. Some cases of Chono (and Alacaluf?) burial in embryonic posture or with knees flexed to shoulders or chin are reported by Alex. Campbell (62), Dr. Medina (*a*, 274), and Capt. Steele (Skottsberg, *b*, 271–272), and a kind of platform burial by Byron (*a*, 90–92) and Alex. Campbell (loc. cit.).

B. Yahgans.—The Yahgans either interred or cremated. The latter custom was followed especially when death occurred far from home, and was apparently intended to prevent desecration of the remains by enemies or by foxes and dogs. A case of Yahgan burial in squatting posture is mentioned by Dr. Lovisato (*b*, 147). He may, however, have been mistaken, as he was in hypothetically attributing this custom to the Onas (*b*, 148).

C. Onas.—Sr. Lista (*b*, 55; followed by Penna, 203) says that the northern Onas practice cremation. Later investigators, however, deny this (cf., e. g., C. Gallardo, 320). The Onas inter their dead in the supine posture. At times they may use caves or the trunk of a tree (C. Gallardo, 320).

Disposal of property

Among the Yahgans the belongings of the deceased are given away or destroyed, the Yahgans "manifesting their sorrow by their aversion to possess any object that belonged to the deceased whom they mourn" (Hyades, *q*, 379; cf. also *p*, 335). The Onas destroy most of the property of the deceased (C. Gallardo, 321).

The Alacaluf seemed to have buried some of the dead person's belongings with him, especially the bow and arrow (van Speilbergen, 1st ed., 34; de Brosses, i, 344; Marcel, *c*, 111). Most of the authorities on the Yahgans and Onas make no mention of such a custom in use by these two tribes, or else deny outright its existence. It is nevertheless affirmed for the Yahgans by Dr. Lovisato (*a*, 199; *b*, 148), Capt. Bove (*a*, 799; *b*, 141; *c*, 134; *d*, *Arch.*, 297), and Dr. Spegazzini (*a*, 12), and for the Onas by Mr. Barclay (*a*, 76), Dr. Dabbene (*b*, 262), and Dr. Holmberg (*a*, 59).[1]

Various customs

The Yahgan prayer to the deceased and the Alacalufan hair amulet have already been mentioned (supra under Cult). Dr. Lucy-Fossarieu states (173–174) that after the death of one of the children belonging to the Alacalufan troupe exhibited at Paris the relatives approached the fire with a grave air and threw into it pieces of meat and bread.

Among the Yahgans and Onas the dead man's hut or shelter is burned, the place is abandoned, and his name never more mentioned; they fear the dead, and will not touch the bones. The Yahgans, and to a lesser extent the Onas, seem to be willing to surrender the bones of their people without very great objection (Lovisato, *b*, 149; Bove, *a*, 799–800; *b*, 107, 142; *c*, 135; *d*, *Arch.*, 297; Martial, 206–207· Dabbene, *b*, 193; Cojazzi, 75).

MYTHOLOGY, FOLK TALES, AND TRADITIONS

Sources

(*a*) YAHGANS.—Barclay, *a*, 64–65; Benignus, 243; Th. Bridges, *a*,* Fr. tr., 178, 181–182; *k*, 236, 239; Cojazzi,* 105–107; Despard,* *b*, 717; Grubb, 139; Hahn, *c*; Hyades, *q*, 281; Martial,* 213–214.

(*b*) ONAS.—Barclay,* *a*, 77–78; *c*, iv; Beauvoir, *a*, 6; *b*, 165–166, 201–202, 217–218; Benignus, 233; Cojazzi,** 38, 76–92, 101–102 (Mánekenkn); Coriat, 207; Dabbene,* *a*, 76–78; *b*, 271–273; Furlong, *g*, 7; *k*,* Shílk'nam and probably Mánekenkn; C. Gallardo, 130, 196–197, 338–340; Holmberg, *a*, 91; Segers, 65.

Based on the foregoing: Cañas P., 397, 399–400; Dabbene,* *a*, 66–67; *b*, 205–206; Ehrenreich, *b*, 36; Payró, 186–188.

For references on the Initiation Spirits, see supra under Initiations.

We have no detailed information at all on the mythological conceptions of the Chonos and Alacaluf. For the Yahgans and especially for the Onas we now have a fair amount of material, although by no means abundant.

Creation

Among the Onas, Pimaukel, the first man, made all things, or at least the plants and animals (C. Gallardo, 338; Beauvoir, *b*, 166). Another myth relates that formerly there lived on earth bearded white men; the sun and moon were then husband and wife; when men began to war, the sun and moon returned to the sky and sent down a red star, the planet Mars, which turned into a giant on the way; the giant killed all men, then made two mountains or clods of clay, from one of which rose the first Ona man and from the other the first Ona woman (Dabbene, *a*, 76; *b*, 271). Prof. Furlong states (*k*) that the Onas "have a legend . . . which relates to the first man and woman who they say were let down from the sky by a rope. The rope was broken and hauled back, so the people stayed." [1]

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[1] The large arrowheads (?) found by Capt. Bove on or near Picton Island (Lovisato, *b*, 101–102) were buried with the bodies. These very large skeletons may possibly have been of Onas.

The Rev. Mr. Bridges states (*a*, Fr. tr., 178) that the Yahgans had certain songs, transmitted from father to son, "concernant l'origine de chaque chose," but he gives no details. See also above Rev. Mr. Despard's report about the forgotten maker of the sun and moon.

Fauna, flora, and inanimate nature

The waxing moon is believed by the Onas, or at least by the Ona women and children, to eat children or to suck their blood (Beauvoir, *a*, 6; *b*, 217; Cojazzi, 81; Segers, 65).

The Yahgans have a clear flood tradition (for details, see especially Martial, 213, or Th. Bridges, *a*, Fr. tr., 181). Among the Onas the flood was sent by their hero Kuanip (Cojazzi, 82–83). Among the Yahgans the moon is the wife of the rainbow, while the sun is the elder brother of the moon and Venus (Hyades, *q*, 281); according to Capt. Bove the rainbow is the messenger of Curspic (*a*, 800; *b*, 142; *c*. 135; *d*, *Arch.*, 297; Dabbene, *b*, 203). Metempsychosis plays a considerable part in nearly all the Ona myths. In both the Yahgan and Ona myths the marriage of human beings with rocks, or the birth of men from rocks or the earth, occurs (cf. creation story, supra, and hero myths, infra). The Onas have quite a number of animal and plant tales (cf. especially Cojazzi, 83ff, 102; also Barclay, *a*, 78; *c*, IV; Dabbene, *b*, 272; Furlong, *g*, 7; *k*).

Hero myths

Two or three tales are related of the Yahgan mythical hero Oumoara, while a more complete cycle regarding the Ona hero Kuanip is available. Neither hero, however, is associated with culture teaching, nor is the object of any cult. (On Oumoara, see: Dabbene, *a*, 66; *b*, 205; Hahn, *c;* Martial,* 213–214. On Kuanip, see Cojazzi,* 77ff; Dabbene, *a*, 77–78; *b*, 271–272. On the Mánekenkn Kuanip, see Cojazzi,* 101.)

Traditions

The tradition regarding the former dominance of the women among the Yahgans and Onas has already been mentioned (cf. under Initiations). The Onas have a tradition that they came from the north and became isolated from their kin by a great cataclysm, which rent their island from the mainland (Beauvoir, *b*, 201).

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[1] This legend is attributed to the Yahgans by Dr. Coriat (207), who gives an interesting if somewhat speculative interpretation of it, namely: bowl-shape sky=uterus; rope=umbilical cord.

DOMESTIC CULTURE

Sources

Most of the numerous references bearing on domestic culture are given passim in the following outline. Here is given a selected list of sources.

(*a*) ALACALUF.—Bougainville,* 2d ed., I, 292–300 passim; Skottsberg,* *d*, 595–596; Vargas Ponce, *a*, 340, 348–350.

(*b*) CHONOS.—García,* *a*, 42; Lozano,* II, 559.

(*c*) YAHGANS.—Bove,* *a*, 792–795; *b*, 136–138; *c*, 127–130; *d*, *Arch.*, 291–294; *e*, 157–159; Th. Bridges, *a*,* Fr. tr., 169–174, 176, 182; *b*, January 1, 1875, 10; *e*,* 332–333; *h*,* 205–210; *k*, 234; Despard,* *b*, 698, 733; Furlong, *b*, 131–132; *j*; Hyades,* *p*, 331–335; *q*, 187–188, 191–195, 237–240, 294, 375–379, 409; Hahn,* *a*, 805–806; Lovisato, *b*, 145–146, 150–151; Martial,* 196–200; Mission Terre de Feu, 311; Spegazzini,* *a*, 9–11, 15.

(*d*) ONAS.—Beauvoir, *b*, 203, 207–208; Cojazzi,* 24–29; Fr. Cook, *b*, 725, 728; Dabbene,* *a*, 72–73; *b*, 255–257; Furlong, *d*, 220–221, 226–227; C. Gallardo,** 211–250; Lista,* *b*, 128–129, probably Mánekenkn; O. Nordenskjöld, *g*, 354–355; *h*, *Tour du monde*, 37–38; Segers, 61, 65.

(*e*) FUEGIANS.—Fitz-Roy,* *a*, 178–179, 182, 185–186.

Based on the foregoing: Cañas P., 347–352; Dabbene,* *a*, 62–63; *b*, 187–191; Parsons, passim; Ploss, *a* and *b*, passim.

COURTSHIP AND CHOICE OF WIFE

A. Yahgans.—There are no fixed forms. The girl is ordinarily given by the father without her consent (Hyades, *q*, 378; *p*, 334), but the choice of the father usually coincides with the choice of the girl (Bove, *a*, 794; *b*, 137; *c*, 129; *d*, *Arch.*, 292), and besides if she is too unwilling she leaves her husband and marries the man of her choice (Th. Bridges, *a*, Fr. tr., 171–172). Marriage is usually founded on affection, although marriage by capture sometimes occurs (Hyades, *p*, 334; Mission Terre de Feu, 311). Before the birth of the first child there may occur considerable shifting and changing of partners (Hyades, *q*, 377–378). Marriage is contracted at an early age.

B. Onas.—The choice of a wife may be made in any of the following ways: (1) By agreement between fathers or between the groom and the bride's father (Cojazzi, 25; C. Gallardo, 212), presents being given to the bride's father by the groom (C. Gallardo, 212–213; Beauvoir, *b*, 207), though the giving of presents is denied by Mr. Barclay (*a*, 76) and Dr. Dabbene (*b*, 256). The father's consent having been obtained, the suitor gives a bow to the girl; if she sends it back by a messenger it means she refuses his suit; if she gives it back with her own hands it means she accepts him (C. Gallardo, 213; Dabbene, *b*, 256; Cojazzi, 25). (2) If the girl belongs to an unfriendly clan, the man waits his chance and commands her to follow him, under threat of shooting her with an arrow (C. Gallardo, 213–214). (3) The women of fallen foes are taken for wives (Cojazzi, 24; C. Gallardo, 214).

It is a common practice among both the Onas and the Yahgans for a man to marry two sisters (Th. Bridges, *h*, 210; Hahn, *a*, 805; Cojazzi, 24; Furlong, *d*, 221; C. Gallardo, 214). If we may judge from the fact that a Yahgan at Orange Bay was married to two Alacalufan sisters (Hyades, *b*, 1344; *q*, 411–412), the same custom may prevail among the Alacaluf.

An Ona or Yahgan sometimes marries a woman and her daughter by a former husband (Cojazzi, 24; Th. Bridges, *a*, Fr. tr., 182). The one older and one younger woman to whom Byron's Chono (?) cacique was married (Byron, *a*, 136) were in all probability mother and daughter by a former husband, which would explain Byron's almost certainly incorrect inference that the younger wife was the cacique's daughter. Alex. Campbell's charge (61; in Prévost, xv, 388) that the Chonos practiced incestuous marriage was an equally unwarranted inference from the same observed fact.

Levirate

The Ona or Yahgan often marries his brother's widow (Hahn, *a*, 805; C. Gallardo, 214). The Ona at least may marry a relative's widow (C. Gallardo, 214) or his deceased wife's sister (Barclay, *a*, 76).

Incest

Marriage between blood relations is held in horror among both the Onas and Yahgans (Th. Bridges, *a*, Fr. tr., 182; *h*, 205; *e*, 332; *k*, 234; Hahn, *a*, 805; Martial, 200; Beauvoir, *b*, 207; Cojazzi, 24; Barclay, *a*, 76; Furlong, *d*, 221; C. Gallardo, 215). Dr. Chastrey's charge to the contrary (255), unless derived from Byron and Alex. Campbell (ll. c.), is probably based on the same source as a great part of his article—that is, on imagination.

The restriction obtains among the Yahgans to the second degree (Th. Bridges, *k*, 234), while among the Onas, if even in case of quasi necessity "cugini di terzo grado" marry, they are talked about (Cojazzi, 24).

Endogamy and Exogamy

Among the Yahgans the man more frequently took a wife from a near rather than from a distant clan, as the women did not like to go far away from their own relatives (Th. Bridges, *h*, 210). Hence the Yahgans may be classed as loosely endogamous (Hyades, *p*, 334).

Among the Onas the young men prefer to take wives from distant clans, but the parents of both the man and woman prefer unions between members of adjacent groups; the Onas are therefore "indistinctly endogamous or exogamous" (C. Gallardo, 212, 215–216).

Neither among the Onas nor among the Yahgans does there appear to be any fixed social law or tribal feeling about the matter.

Formerly marriages between members of the three Fuegian tribes were more frequent (Th. Bridges, *k*, 234), especially in border districts (*cf.* supra in Introduction). At the present time an Ona man marries a Yahgan or Alacalufan woman only when there are no Onan women available (C. Gallardo, 216).

Among the Yahgans and Onas the newly married couple go as a rule to live with the husband's clan, although among the former the man more frequently remains with the woman's parents temporarily, rendering them certain services (Hyades, *q*, 378).

MONOGAMY, POLYGAMY, POLYANDRY

There is no polyandry among either the Yahgans (Th. Bridges, *h*, 210) or the Onas (Beauvoir, *b*, 207).

As to polygamy, there is no tribal sentiment apparently, at least among the Yahgans and Onas, against a man having two or even more wives, yet, de facto, monogamy is the more common rule.

A. Alacaluf and Chonos.—Father García's Chonos were monogamous, he tells us (*a*, 42). Byron's Chono (?) cacique had, however, two wives (*a*, 136). Dr. Skottsberg found monogamy to be the rule among the West Patagonian channel natives, although some men had two wives (*d*, 596; *c*, 97).

B. Yahgans.—The custom differed. "In some places the rule is to have one wife; in others many have two, some three and even up to four" (Th. Bridges, *h*, 206). Bigamy was of common occurrence, in most cases the two wives being sisters (Th. Bridges, *e*, 332; *h*, 210). "Although there are quite a large number of men who have two, three, or even four wives, the more common custom ['l'habitude'] is to have only one" (Hyades, *q*, 378; cf. in same sense, Martial, 198, "rarement trois et même quatre femmes; par fois deux, le plus souvent une"; Mission Terre de Feu, 311). Dr. Lovisato simply states (*b*, 150) that a man has from one to five wives, Prof. Furlong (*j*) rarely beyond three, and Dr. Spegazzini (*a*, 10) that it is not rare to find men with four or even five wives. Capt. Bove says: "Un uomo sposa quante donne egli crede: raramente però si vedono con più di quattro mogli" (*b*, 136; *a*, 793; *c*, 127–128; *d*, *Arch.*, 292). Dr. Cora, whose articles are based on Capt. Bove's report, says a little inexactly (234) that "un uomo ha generalmente quattro mogli"—a slight error followed by Prof. Keane (*a*, 345; *d*, 303).

As Mr. Bridges and the members of the French Cape Horn expedition had much more experience among the Yahgans than had the members of the Italo-Argentinian expedition, it is more probable that the former authorities' estimate is the truer one, namely, dominant monogamy with, however, considerable polygamy.

C. Onas.—Polygamy is apparently less common and less pronounced among the Onas. According to Dr. Lehmann-Nitsche (*a*) and Señor Marguin (501) the Onas are monogamous. It seems, however, that polygamy is allowed and practiced to a certain extent, as is attested by Dr. Gallardo (212), Prof. Furlong (*d*, 221), Dr. Dabbene (*a*, 72), and Dr. Outes (*d*, 135). According to Dr. Gallardo, among the Onas of the north "casi nunca el indio tiene más de una mujer y rara será la vez que pase de dos" (227). Dr. Segers states (65) that while bigamy exists, it is not common, and a man "casi nunca" has more than two wives. Señor Lista (*b*, 128) says practically the same of the southern Ona (Mánekenkn). According to the Salesian missionaries polygamy is allowed; a native never has more than four wives, some Onas have three, many two, but usually they have only one (Beauvoir, *b*, 207; Cojazzi, 24).

To summarize the foregoing, it may be said that most of the most dependable authorities attest that monogamy is the prevailing custom among the three Fuegian peoples, although polygamy is allowed and rather widely practiced.

DIVORCE

Our sources give little explicit information on this point. Among the Yahgans Capt. Martial found it frequent (199–200; cf. also Hyades, *p*, 335), while Mr. Thos. Bridges states (*a*, Fr. tr., 172) that the Yahgan sometimes practice divorce and (*h*, 210) that some women have had as many as ten or more successive husbands. Yahgan partners are often changed before the birth of the first child (Hyades, *q*, 377–378). According to Dr. Gallardo (220), divorce is of rare occurrence among the Onas.

CONJUGAL FIDELITY

A. Alacaluf.—The men are jealous of their wives and demand fidelity of them (Skottsberg, *d*, 596; cf. also Bougainville, 2d ed., I, 296). Capt. King (55–56) relates a case where an Alacaluf met near Port Cooke wanted to sell his wife; that, however, she was actually his wife is not clear from the evidence.

B. Yahgans.—The Yahgans clearly recognize conjugal rights (Th. Bridges, *k*, 234; Hyades, *p*, 334–335; *q*, 378; and others). Adultery on the part of the woman is punished severely by the husband, with hard blows (Hyades, *p*, 335), rarely with death (Martial, 199; Dabbene, *b*, 189), and entrains a certain "mésestime publique" (Hyades, *q*, 378). Jealous wives make life very disagreeable for their husbands (Hyades, *q*, 378–379); a husband's infidelity gives rise to domestic "scenes" (Hyades, *p*, 335), and even at times to violent beatings, if we may judge by the fact that Dr. Spegazzini reported seeing one man who had been paralyzed from the waist down by blows from his outraged better half (*a*, 10).

As to how far marital fidelity is actually observed among the Yahgans, the testimonies differ. Some writers report infidelity as very common (Martial, 199; Th. Bridges, *a*, Fr. tr., 173, an early paper), others as not so common or even as rare (Th. Bridges, *k*, 234, a later paper; Dabbene, *b*, 189; Spegazzini, *a*, 10; Mission Terre de Feu, 311). The truth perhaps lies between the two extremes.

That the Yahgan men are jealous of their wives is attested by all credible observers (cf., e. g., Hyades, *q*, 239; Snow, *a*, vol. I, 338–339; Weddell, 184; Wilkes, *a*, vol. I, 130, 1845 ed., I, 125; *b*, 52). Wives are never loaned or sold (Hyades, *p*, 332; *q*, 239); Dr. Hyades' proofs of this appear to be sufficient.

C. Onas.—Breaches of marital fidelity occur among the Onas, but apparently not with marked frequency; the offended husband is more apt to wreak vengeance on his wife's lover than on her (C. Gallardo, 220).

Position of Woman

Constructively and in theory the woman among the three Fuegian tribes is supposed to be absolutely subject to the man; he is emphatically the head of the family (cf., e. g., Skottsberg, *d*, 596; Martial, 196; Hyades, *p*, 332; C. Gallardo, 224).

A. Yahgans.—Actually, the man's authority is rather weak (Martial, 196); the woman is not entirely dependent on the husband and has considerable liberty (Th. Bridges, *h*, 210; *e*, 332). Not a few men are entirely dominated by their wives (Th. Bridges, *h*, 210; Spegazzini, *a*, 15, "predominio tan grande de las mujeres"), and a man's wives sometimes form a coalition to enforce their will upon him (Bove, *a*, 793; *b*, 136; *c*, 128; *d*, *Arch.*, 292). A woman who conducts herself well is respected and independent (Hyades, *p*, 332).

Brutality, where indulged in by the man, may be occasioned by jealousy (Hyades, *q*, 239), but, on the other hand, the wife herself is not so tender at times with her sinning spouse (Spegazzini, *a*, 10). A cruel husband gets into trouble with his wife's relatives (Th. Bridges, *b*, Jan. 1, 1875, 10). Husbands have real affection for their wives (Weddell, 156), but are chary of showing it, especially in the presence of strangers.

This studied repression of the emotions probably accounts in part for Capt. Bove's characterization of the Yahgan woman as her husband's slave and drudge (*a*, 792; *b*, 136; *c*, 127; *d*, *Arch.*, 291). As for her being a drudge, see following section on Division of Labor. That she is supposed to obey her husband implicitly is emphatically the Yahgan theory, but that she is respected, well treated, and well provided for in the main and actually fairly independent, seems clear from the accumulated testimonies summarized in the preceding paragraphs.

B. Onas.—The Ona woman holds approximately the same position. Absolute obedience to her husband is demanded and rendered as a matter of course, and occasionally he is brutal toward her, but normally she is well provided for, and is the recipient of many tokens of esteem and affection (C. Gallardo, 220, 222–224, 251, 134–135).

C. Alacaluf and Chonos.—Little available evidence. The Alacalufan women are "not exactly ill-treated" (Skottsberg, *d*, 596), and may be sincerely loved by their husbands (Manouvrier, *a*, 765). Byron's Chono (?) cacique, however, was certainly very brutal during a fit of rage occasioned apparently by jealousy (Byron, *a*, 137)

DIVISION OF LABOR

The division of labor between husband and wife is described by many authorities (for the Chonos: Lozano, II, 559; for the Alacaluf: Marcel, *a*, 490; *c*, 108; Fitz-Roy, *a*, 185; Bougainville, 2d ed., I, 292; Vargas Ponce, *a*, 348–349; La Guilbaudiere, 6–7; Skottsberg, *d*, 596; for the Yahgans: Th. Bridges, *h*, 210; Furlong, *b*, 132; Dabbene, *b*, 188; Martial, 197; W. Webster, I, 182; Weddell, 156; for the Onas: Barclay, *a*, 71; *b*, 99; C. Gallardo, 225, 227, 248–249; Cojazzi, 24; Fr. Cook, *b*, 728; Furlong, *d*, 226–227; *k*; Dabbene, *b*, 257; Lista, *b*, 128–129 (Onas of south); O. Nordenskjöld, *h*, *Tour du monde*, 37; Segers, 61; Outes, *d*, 136; Beauvoir, *b*, 203). Judging from these accounts, the division seems, if we take into account Fuegian tribal conditions and necessities, to be a fairly equitable one, and it is so adjudged explicitly by the Rev. Mr. Bridges (*h*, 210; *e*, 332), more or less explicitly by Prof. Furlong (*d*, 227; *k*, and *q*, "well balanced"), and implicitly by Dr. Dabbene (*b*, 257), all of whom had personally witnessed the system in action. Here again Capt. Bove, in describing the Yahgan woman as a mere drudge, seems to have overlooked the exigencies of nomadic life.

MODESTY

That modesty is well observed by the Fuegian woman is unanimously attested by observers (cf., e. g., for the Alacaluf: Duclos-Guyot, *b*, 672; Bischoff, *b*, 243–244; Manouvrier, *a*, 768; Reynaud, *a*, 93; for the Yahgans: Hyades, *p*, 334; *q*, 239, 409; Snow, *a*, vol. I, 325–326, 338–339, 349, vol. II, 46; *b*, 262; W. Webster, I, 181; Weddell, 157–158; Wilkes, *a*, vol. I, 130, 1845 ed., I, 125; *b*, 52; for the Onas: C. Gallardo, 131–132). Dr. Hyades states (*q*, 239) that among the Yahgans even control of the eye is observed and expected by man and woman.

PREMARITAL CHASTITY

A. Yahgans.—Virginity is apparently not greatly esteemed, and there is much indulgence, little restriction being placed on the unmarried girls (Hahn, *a*, 805; Hyades, *p*, 334; *q*, 188). There is no professional prostitution (Hyades, *p*, 335); a woman of markedly loose character or a semiprofessional is rather looked down on (Hyades, *p*, 335).

B. Onas.—While a man is indifferent to the past of his prospective wife, virginity is preserved by both boys and girls as a rule until marriage, as both are carefully guarded by their parents (C. Gallardo, 217).

The Yahgans joke about unnatural vice, but do not practice it (Hyades, *p*, 334; *q*, 294; Mondière, 114). Dr. Karsch-Haack (446) quotes Dr. Arndt to the contrary, but adds that Dr. Arndt gives no authority for the charge. On solitary vice there appears to be little published evidence (cf. ten Kate, 39).

Care of Aged

Among the three Fuegian tribes the aged are respected and well treated (Fitz-Roy, *a*, 179, 186; Th. Bridges, *h*, 206; Despard, *b*, 698; Martial, 205; Hyades, *p*, 332; C. Gallardo, 136, 124, 358; Spegazzini, *a*, 19). Capt. King (23) saw at Port St. Mary a very old Alacalufan woman so infirm that she had to be lifted out of the canoe, while Capt. Snow (*a*, vol. I, 362) observed in one wigwam an old blind Yahgan woman. Dr. Spegazzini (*a*, 19) speaks of an aged Ona who was blind, and who was always accompanied by his grandson as guide. Taking into consideration the nomadic habits of the Fuegians, the above cases speak well for the natives' regard for the aged.

For other data concerning treatment of the aged, see infra, under Political Culture, and Sacredness of Life and Cannibalism under Moral Culture.

Care of the Child

Love for and good treatment of children are amply attested for all three Fuegian tribes (cf., for Alacaluf: King, 76; Meriais, 390; Manouvrier, *a*, 762, 770–771; Bougainville, 2d ed., I, 298–300; Mortillet, discussion after Manouvrier, *a*, 782; Skottsberg, *d*, 595. For Yahgans: Th. Bridges, *h*, 208; Dabbene, *b*, 191; Hyades, *p*, 331; Outes, *d*, 140; Snow, *a*, vol. I, 326, 349, 362–363; *b*, 262; Spegazzini, *a*, 10–11; Weddell, 156–157; Wilkes, *a*, vol. I, 130, 1845 ed., I, 126; *b*, 52. For Onas: C. Gallardo, 135; Pertuiset, 217; Popper, *d*, 138; Lista, *b*, 128, Onas of south; Outes, *d*, 135).

Capt. Bove states that the Yahgan mother's love wanes as the child is weaned and ceases entirely at the child's seventh or eighth year (*a*, 795; *b*, 137; *c*, 130; *d*, *Arch.*, 293; *e*, 158). This view concurred in by Dr. Lovisato (*b*, 145–146) and accepted by Dr. Brinton (*c*, 330) and Prof. Keane (*b*, 432), is almost certainly far too severe, being flatly contradicted by the bulk of authorities, many of whom had much more experience among the natives than had Capt. Bove and Dr. Lovisato. Here, as in their estimate of many features of Yahgan affective life, Capt. Bove and Dr. Lovisato seem to have been misled by the studied dissemblance of the affective emotions which is common to the Fuegians, as well as to the other American aborigines. Dr. Hyades explicitly (*p*, 331) and Capt. Martial implicitly (197) state that the Yahgan child is cared for by the parents until marriage, and the same is implicitly assured for the Onas by Dr. Gallardo (217 and passim).

On the other hand, among the Yahgans (Hyades, *p*, 331; King, 444) and perhaps among the Alacaluf (King, 55; Coppinger, 51, 65) children are sometimes sold or bartered.

INFANTICIDE AND ABORTION

A. Yahgans.—Deliberate abortion is common (Hahn, *a*, 805; Martial, 198; Th. Bridges, cited by Hyades, *q*, 376) and infanticide not rare (Martial, 198; Th. Bridges, cited by Hyades, *q*, 376). Regarding infanticide, however, there is some question. Dr. Hyades came across no cases of it himself (*q*, 376), and states elsewhere that the Yahgans do not practice it (*p*, 331). In three of the Rev. Mr. Bridges' papers (*a*, Fr. tr., 169; *h*, 208; *k*, 240) it is stated that infanticide is rare or very rare, except in the following cases: Desertion on the part of the husband and father, great deformity in the child, too much annoyance to the clan from the child's crying, too many girl babies. These detailed accounts by Mr. Bridges, followed by Dr. Dabbene (*a*, 63; *b*, 190), are probably nearest the truth. Twins are apparently not put to death (Holmberg, *a*, 57).

B. Onas.—Infanticide does not occur at all among the Onas, nor does intentional abortion except occasionally in fits of violent rage (C. Gallardo, 136, 227–228, 233).

NAMING, WEANING, AND CARRYING CHILD

The Ona father after a child's birth makes no inquiries about it, not even regarding its sex, until the mother volunteers the information (C. Gallardo, 230; Cojazzi, 25–26). The Yahgan child is more commonly, although not always, named after the locality in which it is born (Hyades, *q*, 376; Dabbene, *b*, 190; and others), the Ona child more commonly, although again not always, after some physical peculiarity (C. Gallardo, 234; and others).

Among the Onas the child is not weaned until it is 2 years old (C. Gallardo, 232), among the Yahgans not until it is 3 years old (Hyades, *q*, 195) or even older (Despard, *b*, 698).

Among all three Fuegian tribes it is a common custom for the mother to carry her infant on her back in a fold of her mantle (cf. for the Alacaluf: Ill. in Barent Jansz, 1600 ed.; Bougainville, 2d ed., I, 292; Vargas Ponce, *a*, 340; Reynaud, *a*, 92; Coppinger, 50; Skottsberg, *c*, 97. For the Yahgans: Hyades, *q*, pl. XIII and XVIII. For the Onas: Furlong, *c*, 448; Pertuiset, 217; C. Gallardo, 229, 232).

Among the Onas only is the child's cradle in use—in this case a ladder-shaped structure made of two upright and nearly parallel poles, with several cross sticks (C. Gallardo, 288–290, 231–232, ill. p. 231; Cojazzi, 26–27, ill. opp. p. 42; Beauvoir, *b*, ill. opp. p. 200).

Dr. Segers mentions (71) two Ona gewgaws used by mothers to distract or amuse their children—one of six graduated mussel shells on a sinew string, the other the kneepan of a guanaco with the ligament attached.

Kinship

The published data on this subject are unfortunately very meager. Among the Yahgans kinship is reckoned both lineally and collaterally and in both the paternal and maternal lines, and is recognized to the fourth and fifth degree (Hyades, *p*, 333–334; cf. also Th. Bridges, *h*, 206, and Despard, *b*, 698). "L'héritage se transmet à l'époux survivant ou, à défaut, au fils aîné" (Hyades, *p*, 334), but the heir usually gives everything away.

Cf. for Yahgan kinship terms, Hyades, *p*, 333–334, and for Onan, Cojazzi, 95.

The Rev. Mr. Bridges wrote of the Yahgans (*a*, Fr. tr., 182): "Le frère et les soeurs, les nièces et les neveux de quelqu'un s'appellent respectivement père et mère, belles-soeurs ou frères des enfants de cet individu, fils ou belles-filles, et ces fils ou ces belles-filles doivent les traiter comme tels."

MORAL CULTURE

Sources

Nearly every account of the Fuegians contains some data bearing on moral culture. The following list is a selected one:

(*a*) Alacaluf.—Betagh, 79–81; Bougainville, 2d ed., I, 293–294, 300; Coppinger, 55; Fitz-Roy,* *a*, 193–196; Goicueta, 505; Holdich, 152–153; ten Kate, 40–42; King,* 23–24, 76–77, 128–129, 141, 143, 227, 319–320, 343–344, 415; Marcel,* *a*, 492–495; *c*, 109–111; Mayne; Meriais, 391; Skottsberg, *b*,* 258–259; *c*, 98; *d*,* 586, 595–596; Slocum, *a* or *b*, passim; Vargas Ponce, *a*, 349–350.

(*b*) Chonos.—García,* *a*, 42; Lozano,* II, 559–561; Del Techo,* 159–160.

(*c*) Yahgans.—Bove,* *a*, 795–798; *b*, 138–141; *c*, 127–133; *d*, *Arch.*, 293–296; *e*, 159; Th. Bridges, *a*,* Fr. tr., 172–175, 178–180; *b*,* Oct. 1, 1874, 157; Jan. 1, 1875, 12; Mar. 1, 1876, 57; July 1, 1879, 151–155, a long description of blood-revenge customs; Oct. 1, 1884, 224; and passim; *c*, passim; *e*, 332–333; *h*,* 205–210; *k*,* 238–241; Despard,* *b*, 680, 698, 717, 746; Dominguez, 142–143; Dy, 270; Fitz-Roy, *a*, 208–211, 214, 220–222; Furlong, *b*, 127, 134–137; *j*; Hamilton, passim; Hyades, *l*, 718; *p*,* 330–331, 340–341; *q*,* 237–248, 311, 374–376, 380–391 passim; ten Kate, 38–40, 42; Lovisato,* *b*, 145–146; Marsh, *a*, 53, 56–57 and passim; *b*, passim; Martial,* 180–181, 194, 201, 204–207, 216–231 passim; Myers, 214–300 passim; G. W. Phillips, passim; Snow, *a*, vol. I, 326–327, 340, 345, 347–348, 350–351, 362; *b*, 262, 264; Spegazzini, *a*, 10–11, 20–21; W. Webster, I, 176, 179–181, 184; Weddell, 151–155, 167–168, 174–178, 182; Wilkes, *a*, vol. I, 132, 1845 ed., I, 128; *b*, 53; Young, 1–79, 2d ed., 1–82 passim.

(*d*) Onas.—Andersson,* 374–376, 389–390; Barclay, *b*, 101–103; Beauvoir, *b*, 209–211; Cojazzi, 66–67, 97; Dabbene, *b*,* 263–266, 259; Furlong, *d*,* 220–224, 227–228; *k**; C. Gallardo,** 123–127, 130–134, 137–138, 237–238, 188, 293–296, 305–317, 331, 351–358 passim; Labbe; Popper, *d*, 138–142; Spegazzini, *a*, 20–21; Young,* 61, 2d ed., 66, quoting L. Bridges.

(*e*) FUEGIANS.—Darwin, *a*, 1871 ed., 225–227.

Based on the foregoing: Cañas P., 352–354; Cora, 234; Dabbene, *a*, 65; *b*,* 191, 194, 197–200; Hale, 94; A. Jakob, 49–54.

The Fuegians, like their more civilized brethren, do not always live up to their moral ideals, do not practice what they preach. Hence we may divide their moral culture into ideal and actual.

IDEAL MORAL CULTURE

The available data are not very complete. We may, however, gather a good summary of their ethical standards from the instructions given to the young by their parents and elders, especially those given during the initiation ceremonies.

A. Yahgans.—The boys during their initiation are counseled to be honest, truthful, industrious, patient, generous, and chaste, and are admonished not to be jealous, quarrelsome, quick-tempered, or violent (Th. Bridges, *a*, Fr. tr., 174–175; *h*, 208; *k*, 240; Hyades, *q*, 376, citing Th. Bridges, *i*; Dabbene, *b*, 191). The girls are given similar advice (Th. Bridges, *k*, 240; Hyades, *q*, 377). The added counsel given the boys to be prudent in their choice of a helpmate, to select a woman not too young who will be helpful and dutiful (Th. Bridges, *a*, Fr. tr., 175), is somewhat less altruistic, as the older men usually bespeak the younger girls for themselves (Th. Bridges, *h*, 208–209). Cf. also the Yahgan "commandments" in Despard, *b*, 698, 746.

B. Onas.—The boy repeatedly receives good counsel from his father, counsel emphasized still more during the initiation rites. He is urged to be brave, not to be gluttonous nor engrossed in the pursuit of bodily comfort, to be uncomplaining and stoical in suffering and hunger, generous in sharing the spoils of the chase with his fellows, and especially with the aged, continent until he reaches a certain age, docile and kind to his elders, kind but reserved toward women, conscientious in carrying out the laws of blood-revenge (C. Gallardo, 237–238, 331; Dabbene, *b*, 259).

ACTUAL MORAL CULTURE

The reports of passing travelers on the character and morality of the Chonoans and Fuegians differ considerably. Some give a quite favorable estimate (cf., e. g., Betagh, Bougainville, García, *a*, Marcel, *a*, *c*, Venegas, Ferrufino and Estevan, Labbe, Mayne, Meriais, Snow, Vargas Ponce, W. Webster, Weddell), others an equally unfavorable one (cf., e. g., Byron, *a*, L'Hermite, Slocum).

The detailed accounts, however, from observers with more extensive experience and opportunities show a fairly uniform moral culture among the Chonoan and Fuegian tribes, that is in agreement along its main lines on the one hand with that of the general American Indian type and on the other with that of peoples of nomadic culture in other parts of the world. The same contrasts of good and bad occur, and also the same absence of features that are characteristic of peoples who have advanced beyond the nomadic stage of culture.

Adequate details are available only for the Yahgans and Onas.

REGARD FOR HUMAN LIFE

Quarreling, homicide, blood-revenge.—Human life is normally sacred (Th. Bridges, *h*, 205–206; *i*, in Hyades, *q*, 374) but not absolutely so. Of abortion and infanticide we have already spoken under Domestic Culture.

The custom of blood-revenge is emphatically prevalent. In their daily relations the Fuegians are peaceful enough, yet quarrels are not infrequent—quarrels which often, especially among the Onas, pass from words to blows, and may end in homicide.

Among the Yahgans murder is comparatively infrequent. Between 1871 and 1884 the Rev. Mr. Bridges found only 22 cases of homicide (*b*, Oct. 1, 1884, 224)—this among a people who must of necessity take the law into their own hands. The friends of the fighting parties intervene, both by persuasion and by force, to restore peace, but often the fight develops into a general mêlée (Hyades, *q*, 374, citing Th. Bridges, *b* and *i*). A murderer becomes an outcast, abandoned by all (Hyades, *q*, 241, 243; cf. also Th. Bridges, *h*, 206), and will sooner or later be killed (Despard, *b*, 698).

Among the Onas homicide is much more common, Mr. Lucas Bridges stating that "there are few Onas over 30 years of age who have not killed one of their own people in revenge" (Young, 1900 ed., 61, 1905 ed., 66, quoting from letter by Mr. Lucas Bridges). The intrusion of white settlers into native hunting grounds has probably had something to do with this.

Intratribal and intertribal feuds.—There is, or was, a good deal of bad feeling for one another between the members of the three Fuegian tribes, but as a rule on border territories the relations have been fairly peaceful. In their relations with the whites both the Chonos and Fuegians have normally shown themselves peaceful, friendly, and tractable, but the Fuegians have often shown themselves hostile, aggressive, and treacherous, when they felt they were numerically superior. More commonly, however, the white man has, deliberately or unwittingly, been the first to give offence.

Deadly and long-standing intratribal feuds are common, particularly so among the Onas, but warfare, properly so called, can not be said to exist. The vanquished men are usually killed outright and the women and children taken captive. Usually no quarter is given, but there are exceptions. Dr. C. Gallardo mentions an interesting case where two Onas, overpowered by numbers, showed such dexterity in dodging arrows for a whole hour that the attacking party, in admiration, let them go off free (312–314). The Yahgans often mutilate the bodies of dead enemies (Hyades, *q*, 375; cf. also L'Hermite, in de Brosses, I, 441), but there is no torture of living victims. Blood-feuds are often settled by compensation (cf. detailed account of blood-revenge customs in Th. Bridges, *b*, July 1, 1879, 151–155).

Suicide.—Premeditated suicide is unknown among either the Yahgans or Onas (C. Gallardo, 133; Dabbene, *b*, 203).

Human sacrifice.—The Rev. Mr. Bridges, in his earliest paper (*a*, Fr. tr., 181), written before his coming to Ushuaia, states that infants are sometimes thrown overboard to appease Lucooma, the spirit of the tides and whirlwinds, but this item is not found in his later papers (cf. also Ball, 261).

Care of the ill.—The ill, when there is hope of recovery, are given kindly and careful, even if strenuous, treatment; but among both the Yahgans and Onas the custom prevails of strangling, albeit with humane intent, the hopelessly ill, whether young or old. The southern Onas, however, deny that they do this (C. Gallardo, 295). Onas who through illness, infirmity, or accident, are unable to follow the moving clan may be abandoned to their fate—a fate which they accept sorrowfully but stoically (C. Gallardo, 124, 294–296).

CANNIBALISM

Sources

(*a*) Alacaluf.—Fitz-Roy,* *a*, 2, 183, 189; Vargas Ponce, *b*, 29.

(*b*) Yahgans.—Bove, *a*, 801; *b*, 143; *d*, *Arch.*, 298; Th. Bridges, *a*, Fr. tr., 177; *h*,* 205–206; *k*,* 234–235; Cojazzi, 110–111; Despard, *b*, 680; Furlong, *j*; Hyades, *p*,* 331; *q*,* 257–259, 22; see also discussion and notes by Hyades, Bordier, and de Nadaillac, in *Bull. Soc. d'anthr. de Paris*, 1888, 502–504,* 505–506, 66, 29–30; Martial, 193–194.

(*c*) Onas.—Beauvoir,* *b*, 210–211; Furlong, *d*,* 223; *i*, 11; C. Gallardo,* 176, 321; Marguin, 501; Popper, *d*, 138, 141; Rousson-Willems, *a*, 181.

(*d*) Fuegians.—Darwin,* *a*, 1871 ed., 214; King, 462; Cojazzi, 141–143; Lovisato,* *b*, 101, 151.

Based on the foregoing: Andree, 90; Barros Arana, *b*, vol. I, 46; Chastrey, 254; Koch, *a*, 95–96; *b*, 48; Penna, 201–202; Semple, 465; Steinmetz,* 16.

The attribution of cannibalistic practices to the Fuegians was common among the early explorers (cf., e. g., de Brosses, I, 441), but the charge assumed more tangible form after the publication of Admiral Fitz-Roy's and Mr. Darwin's narratives of the *Beagle* expeditions, and has been accepted, or at least quoted apparently with approval, by many writers down to our own day (cf. Barros Arana, *b*, vol. I, 46; Chastrey, 254; Penna, 201–202; Semple, 465).

So far as the Yahgans and Onas are concerned there is sufficient evidence to clear them of the charge beyond all reasonable doubt (Yahgans: Bove, *a*, 801; *b*, 143; *d*, *Arch.*, 298; Th. Bridges, *a*, Fr. tr., 177; *h*, 205–206; *k*, 234–235; Cojazzi, 110, 61; Despard, *b*, 680; Furlong, *j*; Hyades, *p*, 331; *q*, 257–259; Martial, 193–194; Onas: Beauvoir, *b*, 211; Cojazzi, 143; C. Gallardo, 176, 321; Furlong, *d*, 223; *i*, 11; Marguin, 501; Popper, *d*, 138, 141; Rousson-Willems, *a*, 181; and other recent first-hand students). The natives whenever questioned have denied the charge, often emphatically and with horror. They will not even eat animals that are suspected of devouring human flesh.

There remain the Alacaluf. Capt. Low was told by the West Patagonian channel boy Bob that when the natives are pressed by hunger in winter the old women are killed and eaten in preference to the dogs, for "doggies catch otters; old women no" (Darwin, *a*, 1871 ed., 214; cf. also Fitz-Roy, *a*, 189, 183). Admiral Fitz-Roy himself gathered some gruesome details on the capture, smoking, suffocation, and devouring of the old women and the eating of prisoners of war, from his Fuegian protégés (King, 462; Fitz-Roy, *a*, 2, 183), including Jemmy Button, the Yahgan boy (Fitz-Roy, *a*, 183). Later they would not talk on the subject.

The evidence, therefore, for Alacalufan cannibalism is from two independent native sources, representing both the Channel and Strait Alacaluf. Nevertheless certain considerations make its outright acceptance hazardous: (1) No white man has ever observed cannibalistic feasts in Fuegia or any tangible evidence of such. (2) Vargas Ponce, one of our best sources on the Alacaluf, denies from "pruebas convincentes" the existence of anthropophagy among them (*b*, 29). (3) Jemmy Button, one of Admiral Fitz-Roy's informants, was himself a Yahgan, but, as we have seen, the Yahgans are not and in all probability have not been cannibals; if Jemmy's charge be incorrect, that of the other natives may well be so too. (4) The general culture of the Alacaluf is, so far as our evidence goes, so similar to that of the Yahgans that there is an antecedent probability at least that the former would have the same horror of eating human flesh that the latter have. (5) Dr. Lovisato found (*b*, 101) no evidence of former cannibalism in the middens of Elizabeth Island. (6) Cannibalism is the exception rather than the rule among peoples as low in general culture as the Fuegians.

To sum up: The evidence against Yahgan and Ona anthropophagy is fairly conclusive, while that for Alacalufan cannibalism is based on the unsupported testimony of natives whose veracity under the circumstances is to say the least open to very serious question.

DOMESTIC MORALITY

For details see Domestic Culture.

SOCIAL RELATIONS

The friendship sentiment exists but normally is not strongly marked; it is more noticeable between women. Kindness is common, but so also are antipathies and suspicions, hatred and ill-will. Hospitality is extended as a matter of course. Good turns are remembered, but no external sign of gratitude is as a rule manifested; such would be considered unbecoming. Truthfulness is none too highly valued, although malicious lying is more rare. The above data refer to both the Yahgans and Onas.

PROPERTY

Theft is fairly common among the Yahgans, but rare among the Onas. There is no gambling among either people. Generosity is a strongly marked trait of both the Yahgans and the Onas. The spoils of the chase are divided as a matter of course among friends, even with the Onas to the extent at times of the owner relinquishing his own portion (C. Gallardo, 188). Of the Yahgans Dr. Hyades wrote (*q*, 243): "Il semble que les indigènes tiennent surtout à posséder pour avoir le droit de distribuer ce qu'ils ont, et pour le plaisir de faire des largesses" (cf. also Weddell, 168).

PERSONAL MORALITY

Courage and bravery are in honor among all the Fuegian peoples, as is the stoical endurance of pain, privation, and hardship. The love of freedom and the spirit of independence are universal. In the presence of strangers the Fuegian appears as a rule to be taciturn, reserved, and even sullen, but with his own people when all goes well he is jovial and talkative and laughs much.

The Fuegians are or were a temperate people; they had neither intoxicants nor narcotics until they were brought into contact with the white man. They invariably spat out the intoxicants offered them by earlier explorers. Recently, however, they, excepting some of the Onas, have learned both to drink and to smoke. The Chonos had no native intoxicants; the drink made from maize, which was apparently in use on Guatana, one of the Guaitecas Islands (Del Techo, 160), was very likely an importation from Chilotan culture. The Yahgans are said to use a word meaning "small eater" when wishing to speak well of a person (Despard, *b*, 680).

POLITICAL CULTURE

Sources

(*a*) ALACALUF.—Meriais, 390; Skottsberg,* *b*, 259; *d*, 585, 596; Vargas Ponce, *a*, 350.

(*b*) CHONOS.—Del Techo,* 159–160; Olivares, 377; Lozano,* II, 34, 454, 456, 558–559, 560.

(*c*) YAHGANS.—Bove,* *a*, 795; *b*, 138; *c*, 130; *d*, *Arch.*, 293–294; *e*, 158; Th. Bridges, *b*, Oct. 1, 1884, 224; Despard, *b*, 716–717; Fitz-Roy, *a*, 211; Furlong, *b*, 137; *j;* Hyades, *p*,* 335; *q*,* 242–243; Lovisato, *b*, 150; Martial,* 196–197; Weddell, 168.

(*d*) ONAS.—Dabbene, *b*, 255; Furlong, *d*, 220–221; *i*, 12; *k*;* C. Gallardo,* 207–211; O. Nordenskjöld, *g*, 355.

(*e*) FUEGIANS.—Darwin, *a*, 1871 ed., 215; Fitz-Roy,* *a*, 178–179.

Based on the foregoing: Dabbene, *a*, 71; *b*, 187–188; Outes, *d*, 135–136, 140; Garson, 144.

There are no chiefs, hereditary or elective, among any of the Fuegian tribes, nor are there war chiefs (C. Gallardo, 209, for the

Onas). Byron's "Chono cacique" (*a*, 103) was perhaps a Chilotan. Delco, the Guaitecas Islander, is called a "cacique" by Father Lozano (II, 454, 456, 558–560; cf. also Del Techo, 159–160; Olivares, 377), but whether he had any real authority beyond the paternal is not so clear.

The older men and the wizards wield a certain undefined influence or authority over the people. The only fixed authority is that of the man over his family; this authority is in theory at least, if not always in practice, an absolute one.

No distinct clan organization within the tribe exists, although certain groups of natives related apparently by blood and marriage occupy more or less fixed localities (Th. Bridges, *b*, Oct. 1, 1884, 224, for Yahgans; Furlong, *d*, 220–221 for Onas; cf. also Morales, 62, for Alacaluf). There are no secret societies, unless one consider the initiated boys and men to compose such.

No social inequalities are recognized, neither slavery nor an aristocracy being found. Father Del Techo, however, states (160; cf. also Lozano, II, 34) that the Guaitecas Islanders captured and kept as slaves their southern neighbors, the "Huillis." In the Ona council house each man sits under a special log (Furlong, *k*).

No legal code exists; recognized tribal laws are sanctioned by revenge customs, carried out by the injured party or his relatives and friends, and supported by a strong public opinion.

The intertribal relations of the Chonos and three Fuegian tribes are treated in the Introduction, and supra under Feuds.

ECONOMIC CULTURE

Sources

(*a*) ALACALUF.—King, 76–77; Morales, 62.

(*b*) CHONOS.—Beranger, 13.

(*c*) YAHGANS.—Th. Bridges, *a*,* Fr. tr., 179; *b*, Dec. 1, 1875, 218; Mar. 1, 1876, 57, *c*, 114; Despard, *b*, 716; Hyades, *p*,* 334–335; *q*,* 243; Martial, 196, 201; Weddell, 153, 168, 175.

(*d*) ONAS.—Cojazzi,* 63–64; Fr. Cook, *b*, 729; Dabbene, *b*, 255; Furlong, *d*,* 220–221; *k;* C. Gallardo,* 251–252, 291; Popper, *a*, 106–107.

Based on the foregoing: Dabbene, *b*, 194, 198; Somló,* 83–90.

PROPRIETORSHIP

Capt. Weddell was of the opinion (168, 175) that communism prevailed among the Fuegians. Such, however, is not the case.

While all the Fuegians are nomads, yet a Yahgan, for instance, is chary of poaching on Alacalufan or Onan territory (Spegazzini, *a*, 12). Even within recognized tribal territory the existence of more or less definitely marked off family hunting grounds is attested explicitly for the Onas by Prof. Furlong (*d*, 220–221; *k*; *r*, 185-186) and Dr. Dabbene (*a*, 71; *b*, 255), and implicitly by Dr. Gallardo (307–308; cf. also 120). A similar land division would seem probably to obtain among the Yahgans, to judge from the fact that certain clans or families frequented certain localities and were called by the names thereof (Th. Bridges, *b*, Oct. 1, 1884, 224; Martial, 196; cf. also Morales, 62, and Marcel, *c*, 107 for the Alacaluf). Much more light is needed on this whole subject.

The sense of ownership of personal property, such as the spoils of the chase, artifacts, and the movable windshield or hut, is clearly marked, and the right definitely recognized by all three Fuegian tribes (Hyades, *q*, 243; *p*, 335; Despard, *b*, 716; King, 76–77; C. Gallardo, 252); stealing is considered decidedly reprehensible (Hyades, *q*, 243; Dabbene, *b*, 198; Despard, *b*, 698, 746). Women and children have well recognized property rights (King, 76–77, children; Th. Bridges, *h*, 210; *b*, Mar. 1, 1876, 57; Hyades, *q*, 243; Fr. Cook, *b*, 729).

BARTER

Barter between the Fuegians and the whites, between the three Fuegian tribes, and between members of the same tribe is a common feature of Fuegian life, as barter with the Chilotans was of Chonoan (Beranger, 13). The Onas often make long journeys for purposes of barter (Cojazzi, 64; C. Gallardo, 291).

Among the Yahgans at least barter by exchange of presents was a normal usage; a gift was made, regardless often of the wishes of the recipient, who could not refuse it without affronting the giver and who was expected to give something in return (Th. Bridges, *a*, Fr. tr., 179; *b*, Dec. 1, 1875, 218; *c*, 114; cf. also Weddell, 153).

None of the Fuegian tribes has any kind of money, nor any kind of weight or measure.

For disposal of property at death see under Relationship and Death and Burial.

MENTAL CULTURE

Sources

(*a*) ALACALUF.—Cojazzi,* 119–120; Eizaguirre, 70; Fitz-Roy, *a*, 12, 192–193; Manouvrier, *c;* Skottsberg, *d*, 594; Topinard, 776–778.

(*b*) CHONOS.—Walter, 142–145; Moraleda, 358–359.

(*c*) YAHGANS.—Th. Bridges, *a*, Fr. tr., 174; *b*,* passim; *h*, 209; Despard, *b*, 747; Dy,* 271; Furlong, *b*, 132; *j;* Hyades, *p*,* 338–339; *q*,* 248–253, 387; Lovisato, *b*, 144–145; Marsh, *a*, 131 and passim; *b*, passim; Martial, 202, 224–225; Spegazzini, *a*, 22; Weddell, 188–191.

(*d*) ONAS.—Benignus, 234–235; Cojazzi,* 97–99; Fr. Cook, *b*, 724–725; Dabbene, *b*, 266–267; Eizaguirre, 70; Furlong, *d*, 222; C. Gallardo,* 127–130; Holmberg, *a*, 65–66; Lista,* *b*, 129, probably Mánekenkn; O. Nordenskjöld, *c*, 672; *e;* 163–164; *h*, *Tour du monde*, 34; Spegazzini, *a*, 22.

(*e*) FUEGIANS.—Darwin, *a*, 1871 ed., 208, 230.

Based on the foregoing: Brinton, *c*, 331; G. D. Campbell, 167–173; Dabbene, *a*, 64–65; *b*, 196–197; A. Jakob,* 49–54; Moreno, *d*, 577–578; Duckworth, 440.

In their material culture the Fuegians show little evidence of the inventive genius of their arctic counterparts, the Eskimo; their arms, implements, traps, etc., are of very simple construction; the one notable exception, the plank boat, is in all probability of Araucanian origin.

As a hunter the Fuegian is keen, quick-witted, and intelligent. The Fuegian brain is not distinctly inferior in development to the European (Manouvrier, *c;* Seitz, *b;* Duckworth, 440). Some Onas and Yahgans have shown considerable aptitude at learning to speak and even to read and write European languages (Dy, 271; Despard, *b*, 747; Marsh, *a*, 131; Darwin, *a*, 1871 ed., 208; O. Nordenskjöld, *h*, *Tour du monde*, 34; Benignus, 234; Dabbene, *b*, 267; Holmberg, *a*, 66; Fr. Cook, *b*, 724). A certain talent for drawing is also manifested (Dy, 271; Cojazzi, 99). See especially two cases of rather remarkable mental progress among the Yahgans in Dy, 271.

It is doubtful whether any of the Fuegian languages has words for numbers above three; the languages are poor in abstract terms and rich in concretes. No kind of writing exists, not even by notches, sticks, pictographs, etc. The nearest approach to such is symbolic face and body painting.

In general the Fuegians, like other peoples of equally low culture, are backward and uneducated in the white man's learning, but skillful and intelligent enough in their own. Fair mental capacity is present, but lies fallow or rather is planted with an inferior grain.

ESTHETIC CULTURE

Sources

Nearly all writers have had something to say on this branch of Fuegian culture; the chief sources are given passim in the following text.

Music and Songs

The songs of the Fuegians and Chonos are extremely simple, monotonous, melancholic chants, with or without words (cf. for the Chonos: García, *a*, 29.; for the Alacaluf: Vargas Ponce, *b*, 29; Cunningham, 446; for the Yahgans: Th. Bridges, *a*, Fr. tr., 177–178; Dabbene, *b*, 197; Hyades, *p*, 330; Lovisato, *b*, 145; Outes, *d*, 139; Spegazzini, *a*, 13; Wilkes, *b*, 51–52; Furlong, *b*,* 135–136; *o*,* phonographic records; Martial,* 209–211, including four melodies put on scale; Hyades, *q*,* 214–215; Wilkes, *a*,* vol. I, 129–131, 1845 ed., I, 125, 127; for the Onas: Dabbene, *b*, 263; Lista, *b*, 95, 130* [probably Mánekenkn]; Segers, 76; Furlong, *o*,* phonographic records; C. Gallardo,* 162–163). The Yahgans had certain songs, each called after the name of a bird, etc. (Th. Bridges, *a*, Fr. tr., 178).

There is no musical instrument at all among either the Fuegians or Chonos, unless we may dignify with that name the long thick poles used by the Yahgans to beat time with during the death chant (Furlong, *b*, 136), and the esophagus of a guanaco or steamer duck, into which the Ona blows to produce "un sonido desagradable é indescriptible" (C. Gallardo, 163).

POETRY

Perhaps under this heading we may include the songs with words mentioned above, and some of the narratives, legends, etc., included under Mythology.

DANCES AND DRAMA

Byron describes (*a*, 145–146; quoted in Fitz-Roy, *b*, 130; cf. also A. Campbell, 61–62) a Chonoan (?) ceremony in which first the men and then the women danced until exhausted from exertion and excitement; during the dance they carried firebrands in their mouths and burned everybody they came near or cut one another with mussel shells.

The Yahgans and Onas dance alone, in circles or in Indian file; the women rarely dance, and the men and women never together (cf. for the Yahgans: Th. Bridges, *a*, Fr. tr., 179; Dabbene, *b*, 196–197; Furlong, *b*, 136; Martial, 211; Spegazzini, *a*, 14; for the Onas: Dabbene, *b*, 262; C. Gallardo, 164; Holmberg, *a*, 58, says men and women dance together; Segers, 76). There are no war or hunting dances and none of a symbolic, imitative, or dramatic kind, if we except those performed at the boy initiations, during which the men, masked and costumed to represent the nature spirits, dance before and terrify the women and children.

The Yahgans, however, according to the Rev. Mr. Bridges (*h*, 209; *i*, cited by Hyades, *q*, 377; *k*, 239; *e*, 332; Dabbene, *b*, 192), had certain dances of a dramatic nature, which, he seems to imply, were somewhat distinct from the initiation dances and rites.

DESIGN AND SCULPTURE

The Yahgan and Ona masks and the rude carving in wood to represent the Alacalufan evil spirit (Fitz-Roy, *a*, 194) have already been mentioned. The Yahgan idols spoken of by Sr. Payró (184–185), as well as the stone mosaics of the sun, moon, and a hand, of which Prof. Bastian was told (I, 18), rest on evidence that is more than doubtful (cf. also Colini, 238).

Dr. Cojazzi (99) is of the opinion that the Alacaluf used to trace designs on the ground, but he gives no definite proof of this.

If we except the masks and the carving of the evil spirit, there is no evidence that any of the Fuegians have or have ever had any art of design or sculpture. The Ona bows and arrows and the Yahgan coiled basketry are neatly and gracefully finished, but are not ornamented with designs of any kind.

Dr. Skottsberg (*b*, 267–268, fig. 14; *d*, 603, fig. 144) found some Alacalufan bone pendants crudely scratched with lines and dots (cf. also for Onas, Segers, 76, and for Yahgans, Myres, 97)—seemingly an attempt at decoration. Face and body painting is more commonly in the same line-and-dot style, though occasionally the circle is used (Bynoe, in Fitz-Roy, *a*, 197; Vargas Ponce, *b*, 27).

Apart from these very rude traces, the arts of design and sculpture are quite absent from Fuegian culture (Hyades, *p*, 330; Dabbene, *b*, 262; C. Gallardo, 165).

The inner side of mantles, the harpoon handles, etc., may be painted red (C. Gallardo, 152; Hyades, *q*, 350; Skottsberg, *d*, 603).

Personal Adornment

A. *Body painting.*—Red, white, and black face and body painting is found among both the Chonos (García, *a*, 14, 28, 31) and Fuegians (Alacaluf: King, 54; Fitz-Roy, *a*, 139, 177; Skottsberg, *d*, 603; Goicueta, 505; Vargas Ponce, *a*, 339; Bougainville, 2d ed., I, 296; Yahgans: Despard, *b*, 679; Lovisato, *b*, 147; Martial, 188; Bove, *a*, 791; *b*, 134; *d*, *Arch.*, 290; Dabbene, *b*, 176–177; Hyades, *q*, 300, 349–350; Weddell, 152–153). The Onas use, in addition, the colors blue, green, yellow (C. Gallardo, 150, 153), and slate (Barclay, *a*, 72). The various colors and designs have different significations (Dabbene, *b*, 176–177; Hyades, *q*, 349–350; Lovisato, *b*, 147; Martial, 188; Spegazzini, *a*, 14–15; Th. Bridges, *e*, 332; C. Gallardo, 150–152; Segers, 61; Lista, *b*, 128). Both head and body are smeared with grease or oil. The Onas use pigments in body painting for protective coloration when hunting (Dabbene, *b*, 224; Barclay, *a*, 72).

B. *Hair.*—The hair is worn loose, not in tresses; it is often banged or shaved; the tonsure is worn at times by both Chonos (García, *a*, 29) and Fuegians. Depilation by means of two mussel shells is of almost universal use among the Fuegians; but beards and even mustaches are occasionally seen (Th. Bridges, *b*, Feb. 2, 1874, 27; Hyades, *q*, 157–158, 160, and pl. VI, fig. 2; Virchow, *a*, 390, and pl. X, fig. 3; Manouvrier, *a*, 763), and in earlier times bearded men were seen by the Ladrillero (473), the 1641 (Rosales, *a*, vol. I, 105) and the de Córdoba (Vargas Ponce, *a*, 338, "algunos tienen barbas," but "no es comun") expeditions.

A rude comb is used by all the Fuegian tribes. It is made of wood or roots, or, as more commonly, is merely the jawbone of a porpoise or otter (Fitz-Roy, *a*, 139; King, 54; Skottsberg, *d*, 602; Hyades, *q*, 303, 348; Outes, *d*, 138; C. Gallardo, 147). Combs made of whalebone are found among the Onas and Yahgans at least (Dabbene, *b*, 222; Popper, *a*, 105–106; Segers, 71; Colini, 238).

C. *Scarification and tattooing.*—Scarification is common among both the Chonos and Fuegians.

Tattooing is not reported for the Chonos or Alacaluf, and is definitely denied by all competent observers for the Yahgans (Despard, *b*, 679; Th. Bridges, *h*, 206; Bove, *a*, 791; *b*, 134; *d*, *Arch.*, 290; Hyades, *p*, 329; R. Martin, *b*, 208; and others).

Some authorities (O. Nordenskjöld, *g*, 354; Th. Bridges, *i*, in Hyades, *q*, 9; Pertuiset, 217) state that the Onas do not tattoo. The concurrent statements, however, of other authorities speaking from personal observation make it certain that the Onas do tattoo (Furlong, *d*, 222; *k;* Cojazzi, 43, 100–101 [Mánekenkn]; Lista, *b*, 88, 128 [Onas of south]; C. Gallardo, 148; Segers, 66), although the custom is by no means universal. Sr. Lista found it more common in the north (*b*, 128). It is reported for both men and women (Furlong, *d*, 222; *k;** Cojazzi, 43, 100; C. Gallardo, 148; Lista, *b*, 88). It is very rudimentary, consisting of a few incisions on the arm or forearm only (Furlong, Lista, Cojazzi, Gallardo, ll. c.; Segers, 66), as among the Tehuelches (Musters, *Jour. Anthr. inst.*, London, 1871–72, 197; Ratzel, *b*, Engl. tr., II, 80; Keane, *c*, vol. I, 388), the incisions being made with a piece of glass, flint, or bone, and a bit of charcoal inserted into each (cf. Author Bibliography under Roth).

Ona tattooing is purely ornamental, according to Prof. Furlong (private communication), although Dr. Cojazzi (100–101) reports a Mánekenkn belief that it helps the young to grow; Dr. Gallardo (148) states that the design serves the purpose of a family identification mark, and Dr. Segers (66) maintains that each incision records the death of a relative or friend.

D. Mutilations and head deformation.—No mutilations of any kind are reported on dependable authority from either the Fuegians or Chonos, and are definitely denied by the best observers (Th. Bridges, *h*, 206; Hyades, *p*, 330; C. Gallardo, 148, 159). There is no ear, lip, or septum piercing. It is possible, as Dr. Coppinger supposed (49), that one or more teeth are knocked out designedly by the Channel Alaçaluf, but the ground for so concluding is not very solid (cf. under Initiations).

Dr. Cienfuegos was told (92; cf. also Cañas P., 350) by some Fuegians that head deformation is practiced by them, but this is consistently denied by the best authorities, and no trace of deformation has been found on any of the Fuegian or Chonoan skulls (R. Martin, *b*, 160, 208; Virchow, *a*, 382; *b*, 19; Hultkrantz, *a*, 38, 45).

E. Personal ornaments.—The three Fuegian tribes and as far as our evidence goes the Chonos are accredited with very similar ornaments. These are chiefly necklaces of shells and bones, or merely of frapped hanks of plaited sinew often colored red; wristlets and anklets of sinew or hide; feather head ornaments, especially the familiar diadem (cf. for the Chonos: García, *a*, 28; for the Alacaluf: Fitz-Roy, *a*, 176–177; Goicueta, 505; Skottsberg, *d*, 602–603; for the Yahgans:

Fitz-Roy, *a*, 138–139; Colini, 239; Dabbene, *b*, 176; Myres, 97, ill.; Outes, *d*, 138; Hyades, *q*, 298–300, 348–349; Lovisato, *b*, 139–140; Spegazzini, *a*, 5, 7, 14; for the Onas: Colini, 239; Dabbene, *b*, 224; Outes, *d*, 134; Cojazzi, 42, and ill. opp. p. 40; C. Gallardo, 158–162).

According to Dr. Dabbene (*b*, 224), the shell and bone ornaments used by the southern Onas are ordinarily acquired from the Yahgans (cf. also Spegazzini, *a*, 17). A sinew fillet is worn by the Ona women sometimes (C. Gallardo, 159); the Yahgan men more commonly use their slings as fillets (Dabbene, *b*, 176). Fillets of plaited grass (King, 343–344) are reported from the Patagonian channels.

The shells commonly used by the Yahgans and Alacaluf are those of the mollusk *Photinula violacea* (Hyades, *q*, 348; Skottsberg, *d*, 603). Bone or shell pendants are sometimes attached to the Fuegian necklaces (Lovisato, *b*, 140; Cojazzi, 42; Skottsberg, *d*, 603). The Onan necklaces and bracelets are at times made of reeds (C. Gallardo, 160; G. Forster, II, 510).

The feather diadem is common to all the Fuegians and is reported from the earliest times (Goicueta, 505). The Yahgan skin fillet is sometimes ornamented with down (Fitz-Roy, *a*, 139; Hyades, *q*, 299). Labat (Marcel, *a*, 496; *c*, 110–111) found a youth with two bird wings on his head (cf. also García, *a*, 28), and a medicine-man seen by Bougainville (2d ed., I, 299; quoted also in Vargas Ponce, *a*, 352) was similarly decorated. The Onas use an armlet of feathers during their foot races (C. Gallardo, 162; Cojazzi, 64).

There are no finger, ear, or nose ornaments in use among either the Fuegians or Chonos, nor are flowers ever used for decorative purposes.

RECREATIVE CULTURE

Sources

(*a*) YAHGANS.—Th. Bridges, *a*, Fr. tr., 179; *k*,* 240; Dabbene, *b*, 196–197; Fitz-Roy, *a*, 186; Hyades,* *q*, 373–374.

(*b*) ONAS.—Beauvoir,* *b*, 204; Cojazzi,* 64–65; Dabbene, *a*, 72; *b*, 262–263; Furlong, *i*,* ill. of wrestling; C. Gallardo,* 344–350; Segers, 76–77.

Dancing, singing, etc., have been treated under Esthetic Culture.

Data on athletic contests are available for the Yahgans and Onas only. Both indulge in the pastime of wrestling, either singly or in groups, and both have a simple game of ball in which the men stand in a circle and merely throw the ball from one to the other. Foot races are common among the Onas, but no races of any kind are in vogue among the Yahgans (Th. Bridges, *a*, Fr. tr., 179).

The Yahgans practice at exercises with the spear, bow and arrow, and sling, and with stones (Th. Bridges, *k*, 240), while the Onas confine themselves to archery (C. Gallardo, 344). Small bows and arrows are given to the Ona boys to play and practice with (C. Gallardo, 350; cf. also Lovisato, *c*, 721; specimen [perhaps Alacalufan or Yahgan] in Nat. Museum, Washington).

No gambling is indulged in by any of the Fuegians. The elaborate games so common in North America are absent from Fuegian culture.

MATERIAL CULTURE

Sources

The following is a selected list of sources. Pages are not given as the material is too often scattered through the articles and books.

(*a*) Alacaluf.—(*a′*) Older sources: Ladrillero*; Goicueta*; Fletcher; Marcel,* *a* or *c;* van Noort, *a, b;* de Weert; Narbrough; Duclos-Guyot,* *b;* Bougainville*; Vargas Ponce,* *a, b.* (*b′*) Modern sources: Cañas P.; Carpenter; Cojazzi; Coppinger**; Cunningham; Darwin, *a;* Fitz-Roy,** *a;* Hyades, *q;* King; Lovisato, *b;* Macdouall; Meriais; O'Sullivan; Pertuiset; Reynaud,* *a, b;* de Rochas; Señoret; Skottsberg, *b,*** *c,** *d***; Skyring; Tonelli; Topinard; Du Valdailly; Vincent*; Wieghardt. (*c′*) Based on the foregoing: Dabbene, *b;* Friederici, *a, b;* Garson; Hellwald; Lucy-Fossarieu; Luschan; d'Orbigny, *b;* Pi y Margall; Ratzel, *b;* Waitz; J. G. Wood.

(*b*) Chonos.—(*a′*) Goicueta*; Del Techo**; Rosales, *a**, *b**; Olivares**; Lozano; Alex. Campbell**; Byron**, *a;* García,** *a;* González de Agüeros. (*b′*) Based on the foregoing: Juliet, Medina,** *a.*

(*c*) Yahgans.—(*a′*) Older sources: L'Hermite*; d'Arquistade. (*b′*) Modern sources: Bove,** *a, b, c, d, c;* Th. Bridges, *a, b,** *h,*** *i,*** *j,*** *k;* Cañas P.; Cojazzi; Colini*; Colvocoresses; Dabbene, *a,** *b***; Despard,** *b;* Fitz-Roy, *a;* Furlong, *b,** *l;* Herculais; Hyades, *b, c, d, f,** *g,** *h,*** *q***; Lovisato, *a,*** *b,*** *c;* M'Cormick; Marsh, *a;* Martial**; Mission de la Terre de Feu; Mortillet*; Myers; Myres; Pickering*; Pigorini; Raggi; Ross*; Señoret; Snow, *a, b, c;* Spegazzini,** *a;* W. H. B. Webster*; Weddell*; Wieghardt; Wilkes,* *a, b.* (*c′*) Based on the foregoing: Cora*; Feilitzen; Friederici, *a, b;* Garson; Hellwald; Jenkins; Keane, *a;* Lucy-Fossarieu; Luschan; d'Orbigny, *b;* Outes, *d,** *e**; Payró; Pector, *a;* Ratzel, *b;* Spears; Verneau, *a;* Waitz; J. G. Wood.

(*d*) Onas-Shílk'nam.—Barclay,* *a;* Beauvoir,* *b;* Benignus; *Boll. salesiano**; Th. Bridges,* *i* (in Hyades, *q*); Cañas P.; Cojazzi**; Fr. Cook, *a, b;* Dabbene, *a,** *b***; Duse; Furlong, *d,** *g,** *i, k, m;* C. Gallardo**; Giglioli, *b;* Holmberg, *a;* Lahille, *b;* Lecointe; Lehmann-Nitsche, *a;* Lista, *b**; Lovisato, *b;* Marguin; O. Nordenskjöld, *g, h;* Outes, *b**; Pertuiset; Popper, *a;* Raggi; Rousson, *a, b;* Segers**; Serrano M., *a;* Spegazzini,* *a;* Tonelli; Willems, *a, b, c, d.* Based on the foregoing: Gunn; Outes, *d,** *e.**

(*e*) Onas-Mánekenkn.—Recent writers who, like Cojazzi, Holmberg, Furlong, et al., treat of the Mánekenkn explicitly as distinct from the Shílk'nam, do not give details regarding material culture. The following explorers very probably met Mánekenkn and give descriptions of material culture. (*a′*) Older sources: Nodals; Labbe; Banks**; J. Cook, *a* (cf. also Hawkesworth), *b;* Parkinson*; Journal of a voyage . . . in H. M. S. *Endeavor* (anon.); G. Forster*; J. R. Forster. (*b′*) Modern sources: Colvocoresses*; Pickering*; Wilkes, *a**, *b**; Lista, *b***; Segers.

Food

AGRICULTURE AND DOMESTICATION

The Fuegians have not even the rudiments of agriculture, nor have they any domesticated animal except the dog. For details on the Chonos' sporadic agriculture and herding see Culture under Chonos in Introduction, pages 43–44.

Cortés Hojea appears (Goicueta, 509, the text is a little lacking in clearness; cf. infra) to have found a wild (?) dog on one of the islands near Picton Channel, in the West Patagonian channel region, and also reported (ibid., 518; cf. also Del Techo, 160; Lozano, II, 34) the domesticated dog in the Chonos Archipelago. Other early explorers saw dogs in the Chonos' territory (de Vea, 562, 577) or in the possession of Chonos (García, *a*, 32; A. Campbell, 58; Thomas, 33).

Narbrough was the first, so far as the present writer is aware, to report the dog in the Strait of Magellan. He found the natives whom he met in 1670 on Elizabeth Island in possession of large mongrel dogs of several colors (66; in de Brosses, II, 33–34); he compared them to the race of Spanish dogs, as he had those found among the Patagonians of Port Julian (de Brosses, II, 24). Twenty-six years later de Gennes saw five or six small dogs among the Port Famine Alacaluf (Froger, 97; in de Brosses, II, 109). From then on explorers among the Alacaluf frequently report finding them in possession of dogs (Marcel, *a*, 491; *c*, 108; Bulkeley and Cummins, anon. ed., 107; other 1743 ed., 131; Duclos-Guyot, *b*, 674, like foxes; Bougainville, 2d ed., I, 293; Vargas Ponce, *a*, 338, like the Patagonian dogs).

The Mánekenkn met by the first Cook expedition in 1769 at Good Success Bay had dogs about 2 feet high with sharp ears (Parkinson, 8); they all barked (Banks, 59). Sr. Lista found the southern Onas in possession of small dogs (*b*, 127).

The modern Onas have two kinds of dogs (Furlong, *k; q*, 14; Cunningham, 306–307, one like a fox, the other like a wolf). The Ona dogs are said to be unlike those of the Canoe Indians (Spegazzini, *a*, 20; Hahn, *c;* Dabbene, *b*, 251).

The explorers who visited the Yahgans in the early part of the last century found the dog common (Weddell, 153; Ross, II, 305; Fitz-Roy, *a*, 201; Snow, *b*, 262). For descriptions of the Yahgan dogs see Dabbene, *b*, 185; Lovisato, *b*, 102; and especially Herculais, 137–140, and Hyades, *q*, 391–392, 363–365.

Whether or in how far the dog is a later accretion to Fuegian culture is difficult to judge from the evidence at hand. Dr. Lovisato found no bones of dogs in the Elizabeth Island middens (*b*, 102). Some of the explorers prior to Narbrough, such as Ladrillero, Fletcher, and L'Hermite, describe the natives' culture in some detail, yet do not mention the dog. Narbrough implies and Vargas Ponce (ll. c.) explicitly states that the dogs they saw were like the Patagonians' dogs (cf. also Spegazzini, *a*, 20). All this suggests, but suggests only, a borrowing from Patagonia in post-Magellan times.

Goicueta stated on the authority of Cortés Hojea that the Chonos even at that early date, 1557–58, or even 1553, had dogs. There seems to be no good ground for questioning the exactitude of this careful chronicler (confirmed by Del Techo, 160). The Chonoan dog, therefore, was not, it would seem, a European importation.

The other passage in Goicueta is, however, patient of two interpretations. "El perro que llevabamos no era de indios ni sabia seguirlos antes huyó de ellos" (Goicueta, 509). Does "llevabamos" mean here "we took with us" or "we took away, captured"? The latter seems the more likely; and if the dog was not "de indios" was it a wild dog? The incident happened on an island near Picton or Trinidad Channel—that is, what is now Alacalufan territory.

STORING OF FOOD

There is no seasonal or systematic storing of food, although the Yahgans lay up limited supplies of dried fungi (Th. Bridges, *k*, 231; Hyades, *q*, 340), and perhaps meat or blubber may be cached for a time (cf. Fitz-Roy, *a*, 195). The Onas preserve dried meat and fungi (C. Gallardo, 138–139).

DRINK

The Fuegians have no native intoxicant. On the Chonoan intoxicant, made from maize, see Introduction, under Chonos: Culture. Water is the usual drink; the Canoe Indians and Chonos relish seal or whale oil.

KINDS OF FOODS

The northern Onas' chief article of food is the guanaco, which was fairly plentiful over the greater part of their territory. Sea food and seal are the staple diet of the Yahgans, Alacaluf, and Chonos; the supply of sea food is usually abundant in the archipelago (Hyades, *q*, 367; Weddell, 190–191), although there are times of famine (Th. Bridges, *b*, 1874, 138). Salt is not used by the Fuegians (Hyades, *q*, 339; Ladrillero, 464, 473; C. Gallardo, 168).

Plant foods

The plant kingdom is of only secondary importance in the Fuegian and Chonoan food-supply system. The natives sometimes eat berries, roots, fruits, or certain plants, like the wild celery. Some of the fungi are eaten more commonly, especially by the Yahgans.

The Onas prepare a very crude sort of flour from the seeds of one of the Cruciferæ, called *tay* by them; this flour is mixed with water or grease (Cojazzi, 61; C. Gallardo, 171, 173–174; Beauvoir, *b*, 64). In preparing the flour, two unworked stones, one flat and the other roundish, are used as mortar and pestle. The "piccolo mortaio di lava, tondo e ben fatto" from C. Peñas, Tierra del Fuego, which was obtained by Dr. Giglioli, is probably of continental provenance (Giglioli, *b*, *Archiv.*, 262, repr., 246).

Sea-food gathering

The Yahgans and Alacaluf use a four-pronged wooden fork for taking sea urchins (Hyades, *q*, 369, pl. XXXII, fig. 4; Dabbene, *b*, 183; Skottsberg, *c*, 95; *d*, 604), and a flat-ended stick for patellas (ibid.). Mytilus and other mussels are gathered by hand at low tide. The harpoon also may be used in gathering crabs and other crustacea, or a three-pronged stick, into the crotch of which is jammed a rock which falls upon and pins down the crab (Hyades, *q*, 369–370, citing Lovisato). The Alacaluf sometimes lash three harpoons together (Reynaud, *a*, 94); the Yahgans in gathering sea food often used a harpoon with two divergent shanks (Hyades, *q*, 356; Dabbene, *b*, 183; Colini, 160–161), or two, three, or even four harpoons lashed together (Th. Bridges, *b*, Sept. 1, 1874, 138; Mar. 1, 1876, 58).

The Onas use a small spear with a barbed bone shank in gathering crabs and crustacea, and in fishing (Dabbene, *b*, 250; C. Gallardo, 203–204).

Dr. Hyades questions (*q*, 370–371) the exactitude of Admiral Fitz-Roy's (*a*, 185–186) and Mr. Darwin's (*a*, 1871 ed., 213) statements regarding the Fuegian women's custom of diving for sea urchins, and the Rev. Mr. Bridges had never seen the women do this (Hyades, *q*, 370). The Rev. Mr. Despard, however, attributes this custom to them (*b*, 696), and in earlier times at least the custom was in vogue, as is attested by eyewitnesses, among the Alacaluf (La Guilbaudiere, 6; Marcel, *a*, 490, 494; *c*, 108) and Chonos (Byron, *a*, 130–132, 123; Alex. Campbell, 57, 31; Bulkeley and Cummins, anon. ed., 28–29, other 1743 ed., 38–41; Affecting narrative, 45–46). The Chono Delco testified to the usage among his people (Del Techo, 160), and Father Olivares calls (372; cf. also 395) the Chonos "afamados buzos para sacar el marisco."

Fishing

The Onas sometimes take fish by hand or spear them in shallow water (C. Gallardo, 203). For line fishing the Yahgan women use a kelp stem or whale-sinew braid, with a grooved stone sinker, and with a quill slipknot to hold the bait (Hyades, *q*, 303, 370–371; Th. Bridges, *j*, 315).

Fishhooks.—With the rare exceptions to be mentioned below, first-hand authorities on Fuegian culture, even though describing the native material culture in detail, are either silent regarding the fishhook or else definitely deny its use by the Yahgans (Barclay, *a*, 64; Th. Bridges, *h*, 210; *j*, 315; Hyades, *b*, 1347; King, 428; W. Webster, I, 182) and Alacaluf (Vargas Ponce, *a*, 341; cf. also Darwin, *a*, 1871 ed., 213).

According to Cortés Hojea (Goicueta, 518), the Chonos had a wooden fishhook, although Father Lozano (II, 559) seems rather to deny this. Dr. Dabbene has recently (*b*, 183) ascribed a wooden fishhook to the Yahgans; this may be the pronged wooden gorge hook described by the Rev. Mr. Bridges (*h*, 210; *j*, 315; Hyades, *q*, 359; Dabbene, *b*, 185–186), which was used especially in taking cormorants.

Admiral Wilkes found the Onas, probably Mánekenkn, of Good Success Bay in possession of a fishhook "made of the dorsal fin of a fish, tied to a thin slip of whalebone, in the form of a barb" (*a*, vol. I, 118, 1845 ed., I, 115; *b*, 47; Colvocoresses, 36). The fact that both the Yahgans (Hyades, *q*, 303, 368) and Onas (C. Gallardo, 203; Th. Bridges, *i*, in Hyades, *q*, 9) occasionally use a fishing rod suggests the probability that some form of fishhook may be used; Dr. Hyades twice saw Yahgans fishing with a rod and line "du haut d'un rocher" (*q*, 368).

L'Hermite reported finding stone fishhooks among the Yahgans of Nassau Bay district in 1624: "In haer huttekens is niet te vinden als eenighe biese korfkens / daer haer vis-tuygh in is / 't welck bestaet in eenige lijnkens ende steene vis-hoecxkens / op onse wijse seer aerdigh ghemaeckt / daer sy mosselen aen hanghen / waer mede sy soo veel vis vanghen als sy begeeren" (1643 ed., 42; Commelin, II, 28; Decker's tr., 30, "welches bestehet in etlichen Steinern Fischhäcklein / auss unser weiss sehr artig gemacht / daran sie Muscheln anhengen;" "hameçons faits de pierre, assez artistement, à-peu-près comme les nôtres," de Renneville's tr., IV, 701).

Barring several minor errors of deduction, L'Hermite's general description of the Yahgans has been confirmed by later writers—a fact that would incline the modern reader to accept as correct the passage just quoted. On the other hand no other explorer has found the stone fishhook in Fuegia, and such skill in working stone seems to be too advanced for the natives. Is it possible that what L'Hermite took for fishhooks were in reality long-stemmed deeply notched flint arrowheads, or perhaps barbed harpoon heads? The Yahgans often kept arrow heads in their rush baskets, as the "stone fishhooks" were found kept by L'Hermite.

Nets.—The Yahgans do no seine fishing. They, however, sometimes take small fish by means of a basket or net very crudely woven with rushes and bark or split twigs, or by means of an ordinary large-mesh basket attached to the end of a harpoon handle (Hyades, *q*, 372, 303).

The true fish net is found among the Chonos (Goicueta, 518; Byron, *a*, 134; A. Campbell, 58), the Alacaluf (Sarmiento, Iriarte's ed., 81, 123, *An. hidr.*, VII, 422, 446; Duclos-Guyot, *b*, 672; Barclay, *a*, 66; Th. Bridges, *h*, 203; Dabbene, *b*, 214; Stübel, II, pl. X, fig. 10), and the Onas (Th. Bridges, *h*, 203; Dabbene, *b*, 250; Beauvoir, *b*, ill. opp. p. 200; Benignus, 230; C. Gallardo, 202–204; Cojazzi, 57; O. Nordenskjöld, *j*, 125; Lista, *b*, 127, Onas of south; Segers, 69).

The Chonoan nets reported by Cortés Hojea were made of bark fiber (Goicueta, 518), and the Alacalufan nets seen by Duclos-Guyot of intestines (*b*, 672), but the nets in use among the modern Alacaluf and Onas are made of guanaco or seal sinew, with rectangular meshes and the ordinary European knot (Dabbene, *b*, 214; Th. Bridges, *h*, 203; C. Gallardo, 203; Barclay, *a*, 66).

The fish net was found at such early dates, in 1553 by Cortés Hojea and in 1579–80 by Sarmiento, that it is clearly not a European importation.

The Alacaluf also use bird nets made of sinew (Mori, *An. hidr.*, VII, 562, de Brosses, I, 165; Ringrose, Exquemelin, pt. IV, ch. 23, 1684–85 ed., 182, 1893 ed., 470), and the Alacaluf and Chonos seal nets made of rawhide (Th. Bridges, *j*, 314; A. Campbell, 59) with large meshes 8 inches across (Coppinger, 119).

Weirs.—Sometimes rude weirs of branches or stakes are erected in creeks or in other suitable places by the Yahgans (Th. Bridges, cited by Hyades, *q*, 372), the Alacaluf (Vargas Ponce, *a*, 341), and the Onas (Th. Bridges, *i*, in Hyades, *q*, 9). Dr. Coppinger found several stone weirs in an almost perfect state of preservation in the Swallow Bay region within Alacalufan territory (125–126). Cf. also Furlong, *r*, 179–180 on possible Yahgan stone weirs.

Hunting

Whales.—A stranded or dead whale is eagerly taken possession of by both the Fuegians and Chonos. Occasionally the Alacaluf (Marcel, *a*, 490–491) and Yahgans (Hyades, *q*, 356; Th. Bridges, *b*, Jan. 1, 1875, 12–13) hunt the whale in the open sea with their spears or harpoons.

Seals and porpoises.—Seals are commonly hunted by the Fuegians and Chonos, being either speared or harpooned from canoes or from the land, or killed with clubs, or else netted. The various tribes appear on the whole to use similar methods. Dr. Segers mentions (66–67) an interesting Ona ruse for taking seals by the use of a stuffed seal hide as a dummy or decoy.

Guanacos.—In hunting the guanaco the Onas use the bow and arrow, while the eastern Yahgans use either the bow and arrow (Martial, 192) or the spear (Hyades, *q*, 356). For the most complete account of Ona methods of guanaco hunting, see Furlong, *g*.

Otters.—The Yahgans use the harpoon in otter hunting (Hyades, *q*, 364) and are ably assisted by their dogs. The dogs also help the Yahgans and Onas in fox hunting.

Ctenomys fueguinus.—This small burrowing rodent is a staple article of diet for the Onas. A pointed stake or the short spear is used in locating the nests of and killing the animal (C. Gallardo, 189–190; Cojazzi, 54–55; Dabbene, *b*, 249; Furlong, *k*).

Rats.—Rats are not eaten by the Onas or the Yahgans except in extreme necessity—dogs never (Hyades, *q*, 339; C. Gallardo, 172, 70).

Birds.—Birds may be killed with the sling or bow and arrow, or taken in other ways. Snares consisting of a single noose or a series of nooses made of guanaco sinew or whalebone are employed by all three Fuegian tribes (Hyades, *q*, 9, 304; C. Gallardo, 192–193; Dabbene, *b*, 251; Popper, *a*, 106). Sometimes these nooses are placed at openings in small corrals of sticks or stakes (Th. Bridges, *h*, 210; Cojazzi, 56), or attached to the end of a long pole, the native hiding behind a blind and mimicking the call of the bird (Th. Bridges, *b*, July 1, 1879, 158; *h*, 210; C. Gallardo, 193).

Cormorants.—In taking cormorants, which nest on the sides of cliffs, the Fuegians and Chonos go at night with torches and often with clubs; the native is either suspended from the brow of the cliff with long thongs or else climbs up from the water's edge (Th. Bridges, *b*, July 1, 1879, 156–158; C. Gallardo, 190–191; García, *a*, 25, 38; A. Campbell, 60). On the use of the gorge hook, see above under Fishhooks.

General remarks—The dog is a valuable auxiliary in hunting. The more common hunting weapon of the Onas is the bow and arrow, of the Chonos, Alacaluf, and Yahgans the spear and harpoon. As noted above, the Alacaluf use nets for hunting birds and seals.

COOKING

As a rule the Fuegians only half cook their food. Wooden two-pronged tongs are used by the Yahgans (Hyades, *q*, 304) and Onas (Dabbene, *b*, 251; C. Gallardo, 171, 290). For melting fat and holding grease the Yahgans use large mussel shells (Hyades, *q*, 306, 340), the Onas a shoulder blade of a guanaco or seal (Cojazzi, 58).

The Chonos were familiar with the use of hot stones for cooking fish in their bark buckets (Rosales, *a*, vol. I, 151; *b*, cited by Medina, *a*, 186), but the practice is not found among the Fuegians. Heated stones are, however, used by the Onas for heating or toasting *tay* seeds (C. Gallardo, 173–174; Cojazzi, 61), and Dr. Hyades writes of the Yahgans: "Ils se servent de cailloux chauffés au feu pour faire fondre la graisse et tiédir l'eau, dans lesquelles ils plongent ces cailloux" (*q*, 340; cf. also 310).

FIRE MAKING

The pyrites-and-flint method is the only one ever reported for any of the Fuegian tribes. Dr. Ratzel suggests (*b*, vol. I, 523; Engl. tr., vol. II, 90) its possible introduction by Europeans, but the fact that the method is reported from as far back as the time of Sarmiento, who found it in 1580 in use among the Canoe Indians near the modern Punta Arenas (Iriarte's ed., 229, *An. hidr.*, VII, 511) makes fairly certain the conclusion that the custom is a native one. The iron pyrites is apparently found only in the north of Tierra del Fuego Island and in large quantities near Mercury Sound, Clarence Island (C. Gallardo, 255; Dabbene, *b*, 194; Th. Bridges, *b*, June 1, 1883, 139; *i*, in Hyades, *q*, 10).

As tinder the Fuegians use bird down, dried fungus, and perhaps very fine moss.

Besides its use for cooking, heating, and lighting, fire is employed for signaling by all the Fuegians, including the Onas (C. Gallardo, 258; Furlong, *k*), for straightening arrow and spear shafts by the Yahgans and Onas at least (C. Gallardo, 256, 281; Cojazzi, 44; Hyades, *q*, 356), and for bending canoe ribs by the Yahgans and Alacaluf (Spegazzini, *a*, 6; Vargas Ponce, *a*, 344). It is also used in many other ways, as in felling trees, in preparing bark for canoes and material for baskets, etc. The Fuegians have no lamps, but torches of bark are common to both the Fuegians and Chonoans.

The Yahgans and Alacaluf carry fire in the center of their canoes on a hearth of earth, clay, sand, shells, or stones (Ulloa and numerous later voyagers).

SHELTER

Beehive wigwam.—Among the Chonos and Canoe Indians the most common form of shelter is the beehive hut, circular or elliptical in ground plan and with a framework of bent sticks covered with grass, ferns, branches, bark, skins, or anything at hand. The Chonos often carried around in their canoes the poles or bark thatching (Byron, *a*, 123–124; Lozano, II, 560; Beranger, 13). Excellent detailed descriptions are given of the Yahgan hut by Dr. Hyades (*q*, 342) and of the Alacalufan by Dr. Skottsberg (*b*, 261–263; *d*, 597–598).

Skin windshield.—This is the more common Ona shelter. It consists of a few poles stuck in the ground in a semicircle and inclined toward the center, with guanaco skins stretched on them; it thus forms a fencing without roof, but in bad weather the shelter can be nearly closed over. Sometimes the skins are merely tied to branches of trees (Lovisato, *b*, 134; Furlong, *d*, 218).

It is not unlikely that this skin windshield is related genetically to the Tehuelche *toldo*. It is not used by the Canoe Indians. In construction it is similar to the Tehuelchean tent, although much simpler. In earlier times the Patagonians of the eastern end of the Strait used a shelter rather like the modern Ona windshield, if we may judge from Ladrillero's description, which, however, is not quite as clear as we should like: "Sus casas son que hincan unas varas en el suelo, i ponen pellejos de guanacos, i de ovejas, i de venados; i hacen reparo para el viento, i por de dentro ponen paya" (Ladrillero, 499). The Tehuelchean tent and the Ona windshield have the same name (cf. Introduction under Ona and Tehuelche Relations: Cultural Evidence).

Conical wigwams.—Both the Yahgans and the Onas use also a more substantial and usually larger wigwam, in construction like the beehive hut, but cone-shaped, the framework being of stout sapling or tree trunks (Hyades, *q*, 343; L'Hermite, 42; de Brosses, I, 443; Despard, *b*, 680; Dabbene, *b*, 178, 226; Cojazzi, 38–39; Fitz-Roy, *a*, 140; Segers, 64; Furlong, *d*, 218; *k*). Among the Onas at least these more solidly built huts are for more or less permanent use as compared with the skin windshield which is put up for short or overnight stays (Cojazzi, 38, 40; Dabbene, *b*, 226). Mr. Despard stated (*b*, 680) that the Yahgan beehive and conical huts are for summer and winter use, respectively.

Large wigwams.—Considerably larger wigwams, of circular or elliptical ground plan, have been observed at times in Yahgan and Alacalufan territory (Fitz-Roy, *a*, 198–199, 215; King, 440, 441–442, conical, 166; and especially description and cut in Skottsberg, *b*, 262–264; *d*, 598–599). Such large huts were used in the Yahgan initiation ceremonies, but it would seem that they were also used as common shelters for several families, as Dr. Skottsberg found several hearths in one. Dr. Hyades mentions a Yahgan partitioned wigwam (*q*, 342, note), and Dr. Segers an "enormous wigwam of pyramidal form" used in winter by the southern Onas (64). This latter may have been a council house (cf. Furlong, *k*).

Other kinds of shelters.—The Yahgans and Onas at times use caves (Hyades, *q*, 8, 342), or make a rude shelter of a few branches tied together or stuck in the ground (ibid., 341–342; Gunn, 325). The Onas apparently sometimes use simple trenches or holes dug in the ground (Gunn, 326). The Yahgans sometimes construct smaller wigwams, "consacrate agli amori" (Lovisato, *b*, 132–133) or for the use of children (Hyades, *q*, 342; Th. Bridges, *a*, Fr. tr., 171; cf. also Vincent, 123, for Alacaluf). A gable-roofed tent, in contour like our A-tent and covered with bark, etc., is mentioned by Dr. Dabbene (*b*, 226) and Prof. Furlong (*d*, 218; *k*) as used occasionally among the Onas in winter or for longer stays.

Sometimes the interior of the wigwam is scooped out among the Onas (C. Gallardo, 244; Barclay, *a*, 72) and Yahgans (Hyades, *q*, 343; L'Hermite, 42; de Brosses, I, 443; Despard, *b*, 680). A little grass or some branches are usually put on the floor (C. Gallardo, 244; Hyades, *q*, 343–344). The fire is made in the center of the beehive and conical huts and at the opening of the windshield. The huts may have one or two doors; in the latter case one door is usually toward the sea, the other opposite.

CLOTHING

Body covering.—The skin mantle is the chief and common garment of the Chonos and three Fuegian tribes. Between, however, the

Onas on the one hand and the Chonos, Alacaluf, and Yahgans on the other, there are certain noticeable differences. The Ona mantle reaches to the feet or knees and usually has no string, while the mantle of the others reaches only over the shoulder and breast or to the waist and is held by a string. The Ona nearly always wears his mantle, except in hunting, wrestling, etc., while the others very frequently go or used to go without it.

The Onas more frequently make their mantles from guanaco skins, the others from seal, otter, or fox skins; but other skins may be used where available. Bird-skin clothing has sometimes been observed (Marcel, *a*, 492; van Speilbergen, in de Brosses, I, 344; van Noort, *b*, 1601 ed., 21; Hyades, *q*, 347; Byron, *a*, 34, 127; García, *a*, 23). The Chonos are reported by Cortés Hojea (Goicueta, 518) to have made mantles from fiber, as Father Rosales says (*a*, vol. I, 224) the Chilotans formerly did. The Chonoan dog's hair mantles have been mentioned before (cf. Introduction under Chonos: Culture).

The Yahgan women rarely if ever go without a triangular pubic covering of bird skin or hide (Hyades, *q*, 307, 347–348; Fitz-Roy, *a*, 138; Weddell, 157–158; L'Hermite, 41; de Brosses, I, 443), but the men go frequently without such, as did sometimes the Alacalufan men, and even women, in earlier days (Ladrillero, 473, 464, 484; Goicueta, 485, 505, 519; La Guilbaudiere, 4; cf., however, for later times, Vargas Ponce, *a*, 339; Skottsberg, *d*, 602).

The Ona women wear beneath their mantles, which are a little shorter than the men's, an under garment of guanaco skin, tied to the body and reaching from the breast to the knees (C. Gallardo, 157; Dabbene, *b*, 223; Cojazzi, 41); the women also wear a pubic covering of the same material (C. Gallardo, 156–157).

The Fuegian skin mantle is always worn with the fur outside, in contrast with the Tehuelche custom, but the Ona woman sometimes wears her under garment with the fur inside (C. Gallardo, 157).

Head covering.—In hunting and fighting especially, the Ona men wear a triangular peak of guanaco skin over the forehead, but the Ona women and among the other Fuegians and the Chonos both sexes go bareheaded. Exceptionally the Alacaluf may wear a head covering, apparently distinct from the feather diadem (Narbrough, 65, de Brosses, II, 32; Bynoe, in Fitz-Roy, *a*, 197; Voyage round world in Dolphin, 56, Span. tr., 55; Vargas Ponce, *b*, 58).

Foot covering.—The Ona men and women wear in walking primitive moccasins and sometimes leggings made of guanaco skin (C. Gallardo, 155, 158; Dabbene, *b*, 224; Cojazzi, 42). Neither the Chonos (Byron, *a*, 144; cf. also Goicueta, 519, on natives south of C. Tres Montes) nor the Canoe Indians wear any foot covering, except occasionally when traveling or hunting on land, as is attested for the Yahgans by Dr. Hahn (*b*, 1534) and for the Alacaluf by Narbrough

(65; de Brosses, II, 32), Vargas Ponce (*a*, 339) and the author of the Voyage round the world, in H. M. S. *Dolphin* (56; Span. tr., 55).

Hand covering.—No hand covering is worn by either the Chonos or Fuegians. The Yahgans, however, occasionally use a rude fingerless working glove of hide (Hyades, *q*, 301) and the Onas and Alacaluf protect their hands with a piece of guanaco skin or other material when making arrow heads (Cojazzi, 45; C. Gallardo, 259; Coppinger, 119).

Skin dressing.—Detailed accounts of the Yahgan and Alacalufan methods of skin dressing are not given by writers on Fuegian culture. In the National Museum at Washington there is an otter skin stretched on a rectangular frame—probably of Yahgan or Alacalufan provenance. It was evidently such a drying frame that M'Cormick saw on Hermite Island (I, 301). The Yahgans stretch seal skins upon the ground in the wigwam and cover them with grass and moss; after a while the hairs become completely detached (Hyades, *q*, 347). The Yahgans make thongs flexible by drawing them through their teeth or chewing them (Hyades, *q*, 141, 143, 302)—a method in vogue among the Onas also (C. Gallardo, 264) and probably among the Alacaluf (Skottsberg, *b*, 252).

The Onas, after scraping off the flesh and fat from a skin, take it in both hands and rub it together briskly, then anoint it with grease (Cojazzi, 63; C. Gallardo, 265, 286). If the skin is to be worn as a mantle they trust largely to actual wear to soften it (C. Gallardo, 265). To dry a skin they stake it to the ground if weather and ground conditions are favorable, else they stretch it taut with flexible cross-sticks and lean it against the wigwam or windshield to windward (C. Gallardo, 244–245). To make hide they remove the hair with a hafted scraper of stone or glass, and spread on red earth and grease (Cojazzi, 63).

Coloring the inner side of mantles with red earth is common among the Alacaluf and Onas at least (Skottsberg, *d*, 603; C. Gallardo, 152).

NAVIGATION

The modern Onas have no kind of water craft, nor is there any positive evidence to show that they formerly possessed any of their own making. Moreover, no indication of a former art of navigation is found in any of their myths or traditions.

It is true that Father Falkner's Yacana-cunnees are supposed to have used "light floats, like those of Chiloe," to cross the Strait (111; cf. also 92–93), but there are good reasons for reserving judgment on the accuracy of his narrative (cf. Author Bibliography, under Falkner).

That, however, the Onas occasionally ventured and venture on the water is well enough attested. Prof. Furlong's Ona guides had just returned from a hunting expedition on Navarin Island (verbal communication).[1] The Rev. Mr. Bridges found the Dawson Islanders as much Onan as Alacalufan (*b*, Feb. 1, 1886, 33; cf. also *k*, 234). Old residents of Punta Arenas assured Dr. Segers that many Indians recalled how, 20 years previously, they used to cross the Strait from Patagonia to Tierra del Fuego (63). Mr. Marsh states, apparently on the authority of the English missionaries, that the Onas rarely use canoes (*a*, 109).

In view of the preceding statements, the assertion frequently made, that the Onas never use or have used canoes, appears to be too sweeping. They may possibly have reached their present habitat by water. It is even possible, too, that the "tall" natives encountered in canoes by the Loaysa and de Weert expeditions may have been Onas.

Rafts and balsas.—Neither rafts nor balsas have ever been reported by any of the scores of first-hand observers of Fuegian and Chonoan culture. Cf. Herbertson in Author Bibliography.

Skin boats.—Two recent visitors to Fuegia report seeing in the same locality, the Magdalen Channel district, a canoe made of bark and skins stretched on a wattle framework (Mossman, 365–366; Conway, 194), while Dr. Essendorfer described (60–61) one seen near Cape Froward as made of "zusammengenähten Häuten, mit der unbehaarten Seite nach aussen." This type of boat, if the reports be correct, is very unusual in Fuegia.

Dugouts.—In recent years, especially since the last decade of the last century, the dugout of beechwood has largely superseded the Alacalufan plank boat (Skottsberg, *d*, 581; *b*, 270; *c*, 100; Barclay, *a*, 66; Cojazzi, 122) and the Yahgan bark canoe almost entirely (Dabbene, *b*, 181; Furlong, *b*, 126). In 1882–83 the French expedition encountered only one Yahgan dugout during a whole year's residence (Mission Terre de Feu, 275).

The only earlier mention of the dugout as being in use among the Fuegians or Chonos is, as far as the present writer has noted, Father Rosales' statement, not based on personal observation, that dugouts made with fire and shells were used by the natives who lived toward the Strait of Magellan (*a*, vol. I, 173–174).

One-piece bark canoe.—Several writers on Fuegian culture state that the natives sometimes use one-piece bark canoes (Colini, 162; J. G. Wood, II, 520, Amer. ed., II, 1168; Hale, 94; Lucy-Fossarieu, 169–170). All these statements hark back to a passage in Commodore Byron's narrative in Hawkesworth (I, 79). An officer who had been ashore reported seeing canoes which were "nothing more than the bark of large trees, tied together at the ends, and kept open by short pieces of wood, which were thrust in transversely between the two sides, like the boats children make of a bean shell." Such a description might apply equally well to the three-piece bark canoe (cf. Fitz-Roy, *a*, 140). All the scores of detailed accounts of the Fuegian canoe describe it as built up of three or more pieces.

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[1] According to Jemmy Button, the Yahgan boy, the Onas used to cross Beagle Channel in stolen Yahgan canoes in order to raid the Navarin Island natives (Fitz-Roy, *a*, 205–206, 325–326). Mr. Despard, however, held (*b*, 717) that the Onas did not raid beyond the north shore of Beagle Channel.

Sewed-bark canoe.—Until about a generation ago the Yahgans used exclusively the bark canoe, and in earlier times it alone was used over the whole of the present Alacalufan territory as far up the coast as the Gulf of Peñas.

The Ladrillero and Cortés Hojea expedition in 1557–58 found only the bark canoe in the territory from the northern end of Fallos Channel to the western end of the Strait of Magellan, and also in the Última Speranza district (Goicueta, 484, 519; Ladrillero, 465, 473, 484, 490). None of the many early Magellanic explorers prior to the voyage of Byron in 1765 reported finding any but the bark canoe in the Strait (cf. especially La Guilbaudiere, 4–5, 19; see also 28).

The plank boat, in migrating down the west Patagonian coast, effectually but never entirely displaced the bark canoe, for Mr. Bynoe found the bark canoe in Obstruction Sound, and one as far north as Messier Channel (Fitz-Roy, *a*, 199; cf. also Child, 245, for Smyth Channel), while Machado (*An. hidr.*, XIV, 85) 60 years earlier, in 1768, found at Port Tangao, probably on Tangbac Island, at the southern end of Moraleda Channel, that is, in Chonoan territory, considerably north of Taitao Peninsula, a party of marooned natives engaged in making a bark canoe.

Throughout the whole territory where found, the bark canoes were constructed in the same way—of three or more pieces sewed together, with thwarts and ribs and with pointed ends. L'Hermite describes (1643 ed., 42) the Yahgan canoes of Nassau Bay as like "Venetian gondolas"; Drake's chronicler, Fletcher (Hyades, *q*, 3), compares those seen at Elizabeth Island to crescents; Goicueta (484) speaks of those observed at the northern end of Fallos Channel as "como luna de cuatro dias, con unas puntas elevadas" and made of bark "tan gruesa como un dedo" (519). Of the same shape are the canoes illustrated in de Weert, and L'Hermite, opp. p. 40.

Bark of the beech (*Fagus betuloïdes*) was usually employed. In cutting the bark the natives used a shell, bone, or flint knife, and held themselves to the tree trunks with strong rawhide thongs (Th. Bridges, *j*, 314; Hyades, *q*, 350; Dabbene, *b*, 181). Many detailed descriptions of the bark canoe are available; see especially Hyades, *q*, 304–306, 350–352, 414; Vargas Ponce, *a*, 343–346; Dabbene, *b*, 180–181. An excellent account of canoe making is given in Despard, *b*, 679–680.

The Alacaluf often made bark canoes of much larger dimensions than those in use among the Yahgans. The latter ones were, as a rule, from about 12 to 20 feet long (Fitz-Roy, *a*, 140; Hyades, *g*, 414, 5.20 meters; Bove, *a*, 792; *b*, 135; *d*, *Arch.*, 291, 4–6 meters; Lovisato, *b*, 134, 5–6 meters; Weddell, 163, 12 feet 4 inches; Dabbene, *b*, 180, 4–5 meters; cf. Marcel, *a*, 491, 15–16 and 12–18 feet, Alacalufan canoes; *c*, 108), while those found by de Córdoba among the Alacaluf of the Strait were ordinarily 24–26 and occasionally 30–32 feet long[1] (Vargas Ponce, *a*, 344; cf. also Pertuiset, 221, 8–10 meters long, and the "large canoes" observed by the Ulloa expedition, in Gay, Doc., I, 177).

While the Fuegian bark canoe is a fairly well made and seaworthy craft, it would appear on the whole inferior in lines and workmanship to the North American birch bark, to which, however, it bears considerable resemblance. For comparison with bark canoes from Australia and Africa see von Luschan, and also N. W. Thomas, Australian canoes and rafts, in *Jour. Anthr. inst.*, London, 1905, XXXV, 56–79.

Plank boat.—This craft has had an interesting career in the Chonoan and Magellanic Archipelagos. A fairly continuous series of documents, most of them based on first-hand study, enable us to trace pretty clearly its history, migration, and development from the middle of the sixteenth century down to the present time.

At the time of the earliest explorations in the archipelagos south of Chiloé the plank boat was not found south of Taitao Peninsula and Cape Tres Montes. The Ladrillero and Cortés Hojea expedition encountered many groups of natives between the Gulf of Peñas and the western mouth of the Strait of Magellan, and all without exception had bark canoes (references supra). The earliest mention of the plank boat is contained in Goicueta's narrative of Cortés Hojea's voyage in 1557–58. On the way back Cortés Hojea found among the Araucanian-speaking natives of Coronados Gulf a great number ("mucha cantidad") of canoes made of three planks (514).

Goicueta in the same narrative (518) states that the natives between the Gulf of St. Martin (=Corcovado Gulf) and Cape Ochabario (=C. Tres Montes) used the same kind of boats as did the Coronados Gulf Indians. Cortés Hojea did not, it would appear from Goicueta's narrative, encounter any natives in this Chonoan region on his 1557–58 expedition; he had, however, accompanied Ulloa in 1553 (489) and must have seen plank boats south of Chiloé then. Ulloa encountered at least one party of natives on Taitao Peninsula and probably others elsewhere; and, moreover, Goicueta's narrative is carefully and soberly written. So we may accept Goicueta's attribution of the plank boat to the Chonos as reasonably dependable.

Góngora Marmolejo, in his Historia of 1575 (ch. 58, p. 153), Brouwer after his visit of 1643 (32; *An. hidr.*, XVI, 34), Father Ovalle in 1646 (bk. 8, ch. 21, p. 394), and Father Rosales in 1674 ca. (*a*, vol. I, 175), all describe the Chilotan or Chonoan plank boat as having only three planks; so, too, does Father Lozano (vol. II, bk. 5, ch. 4, pp. 31, 455), writing in 1754–55, but utilizing earlier missionary reports, probably Father Venegas' and others of the early seventeenth century. Father Rosales adds that the plank boat was also used by the Peguenches near Lake Naguelhuapi and other lakes close to Chiloé, although the Indians of Villarica navigated Lake Epulabquen in balsas and dugouts (*a*, vol. I, 176).

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[1] Presumably Spanish feet of 10.968 inches.

Up to the end, therefore, of the seventeenth century the plank boat was of only three pieces. It was propelled by from 8 to 12 rowers (Rosales, *a*, vol. I, 175; cf. also Ercilla, canto 36, the 12-oared piragua seen by him in 1558 in Chilotan waters was probably a plank boat; Góngora M., 153, 5–12 rowers); the coxswain sat in the stern (Rosales, loc. cit.).

During the course of the eighteenth century the dalca developed from a 3-plank to a 7-plank craft. Father Olivares, writing in 1736, in all probability from personal observation, states that the dalcas were then usually made of 3 planks, though there were some larger ones of 5 planks, but never more than 5; the Spaniards made them from about 8–12 "brazadas" (Olivares, 371)[1] (=45 to 65 feet) long with 5 planks only (Olivares, 370–371; cf. also Alex. Campbell, 62–63; in Prévost, XV, 388; Molina, *a*, 209; *c*, bk. 4, ch. 2; Byron, *a*, 151–153; and in Fitz-Roy, *b*, 131). The ordinary length of the native dalca was from 11 to 22 feet (García, *a*, 23, 31, two to four brazados; 28, eight varas; Góngora M., 153, 34 feet; González de Agüeros, 66–67, 2–4 brazas; Moraleda, 351, up to 20 varas). Toward the end of the eighteenth century 7-plank dalcas are for the first time mentioned (González de Agüeros, 66; cf. also Moraleda, 350).

The plank boat was first reported as seen within the Strait of Magellan by Byron in 1765 (*b*, 79–81) and by the second de Córdoba expedition in 1789 (Vargas Ponce, *b*, 59–60)—in both instances west of Cape Upright, near the western end of the Strait.[2]

In the second quarter of the last century the first English expedition under Capt. King encountered plank boats as far east as Fortescue Bay and to the southeast off the Grafton Islands (King, 313, 377). The same expedition reported the largest Chilotan dalcas as being 35–40 feet long; a dalca encountered at Neesham Bay, near Trinidad Channel, was upward of 23 feet long (King, 267). Of special interest is Mr. Bynoe's description of the two large plank boats seen in the Gulf of Trinidad; they were 30 feet long and 7 wide; the weight of two men standing on one gunwale did not swamp the boat (Fitz-Roy, *a*, 198).

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[1] Brazada=1.67 m. (*An. hidr. mar. Chile*, XI, 529).

[2] De Brosses, in his account of Sarmiento's voyage taken from Argensola, wrote (I, 206): "Ils virent venir une pirogue qui est une espèce de barque plate sans vibord, faite de madriers joints ensemble, & quelques fois tissue de joncs, ou composée de courges"—this was apparently off the west coast of Hanover Island, in what is now Alacalufan territory. The passage in Argensola reads (1609 ed., bk. 3, p. 117): "Vieron venir por el agua una Piragua (es barquillo de maderos juntos, sin borde: texese algunas vezes de juncos: y algunas de calabaças)." The two latter sections of Argensola's explanation in parentheses are evidence that the whole explanation is his own, and in fact the original passage in Sarmiento's own narrative reads simply (122): "Y que había visto venir una piragua con gente India." The term "piragua" was used at the time to denote almost any kind of small craft (cf., e. g., Hernandez, XXV, XXIX).

Dr. Coppinger some 50 years later found plank boats of 5 pieces, and 20 feet long (43–44), and others holding 16 and even 23 persons (67, 74)—this last at the northern end of Picton Channel.

Many good descriptions of the plank boat are available. See, for example: Lozano, II, 31, 455; Coppinger, 43–44; Friederici, *a*, 44–45; Juliet, 335–336. Dr. Fonck has reproduced from Father Menendez' manuscript the only extant cut of the now vanished Chilotan dalca (Fonck, I, 104; II, 436; cf. also bibliography, ibid., II, 193).

The Chonos and more southern Canoe Indians made their dalcas without axes or adzes, by the use of fire, flints, and shells (Byron, *a*, 152; García, 23; Rosales, *a*, vol. I, 174). Beechwood was the usual material for the planks (Olivares, 371; King, 280; cf., however, Steffen, *a*, 110).

An interesting feature of the dalca was that it could be readily taken apart for portaging over isthmuses and necks of land (Byron, *a*, 151–153; Olivares, 376).

Portages.—Portage routes are very common in the territory between the Chonos Archipelago and Port Gallant in the Strait (cf., e. g., Skottsberg, *c*, 101; Du Valdailly, 294; Coppinger, 59; Pacheco, *a*, 54; Reynaud, *a*, 94; Steffen, *a*, 110–111; *b*, 346–347; see also Fonck, II, 17, and King, 283). Prof. Furlong (verbal communication) was told of one in Yahgan territory—perhaps this is the mountain pass between the head of Romanche Channel and Tekenika Bay (cf. note on map no. 453, United States Hydrographic Office)—but with this possible exception they are not reported east of the Port Gallant district. The portage route across the Isthmus of Ofqui was the common native highway from earliest times between the Chonos Archipelago and the Gulf of Peñas.

Sails.—In a favorable wind both the Yahgans and the Alacaluf sometimes use a crude sail made of a sealskin or of several seal skins sewn together (Dabbene, *b*, 181, 208; Hyades, *q*, 13; Coppinger, 64; King, 382; Bougainville, 2d ed., I, 291; Wallis, 392). It is reported among the Alacaluf as early as 1698 (Du Plessis, in Marcel, *a*, 492; *c*, 109) and among the Chilotans and Chonos as early as 1791 (González de Agüeros, 67) and 1767 (García, *a*, 23), and among the Chilotans in 1674 (Rosales, *a*, vol. I, 175). Its occurrence among the Alacaluf at such an early date would suggest that it is of native origin, not of European introduction, but the point can not be conclusively decided (cf. also discussion in Friederici, *a*, 73–79, especially 74).

Oars and paddles.—As a rule oars are used with the plank boats, and paddles with the bark canoes. Where oars are used, a coxswain, usually an old woman, sits in the stern and steers with a paddle or short oar (Vincent, 123; Reynaud, *a*, 92; Skottsberg, *c*, 99; *d*, 600; Fitz-Roy, *a*, 198; Dabbene, *b*, 214; cf. also Rosales, *a*, vol. I, 175). No rudder is used.

The paddles are in one piece with relatively long lanceolate blades and without cross-handles. The Alacalufan oars are more commonly reported as being of two pieces, a short roundish, elliptical, or oblong blade lashed to a long handle (Skottsberg, *c*, 99; *d*, 600; Vincent, 123; Coppinger, 44; Fitz-Roy, *a*, 198; Rochas, 223; Essendorfer, 61; Brassey, 128).

Bailers.—Some voyagers (Byron, *a*, 153; also in Fitz-Roy, *b*, 131; de Labat and Du Plessis, in Marcel, *a*, 491–492; Fletcher, in Hyades, *q*, 3) describe plank boats or bark canoes so well constructed and calked as to require no bailing, but as an almost universal rule both plank and bark canoes, even the Chilotan (Rosales, *a*, vol. I, 175: "siempre hazen agua"; cf. also A. Campbell, 64), require almost continual bailing. The cylindrical bailers are usually made of bark or sealskin (Skottsberg, *c*, 99; *d*, 601; Hyades, *q*, 352, 306–307, pl. XXXIII, fig. 3).

Origin of the plank boat.—The true plank boat as distinct from the built-up dugout appears to have been found in only one other place on the American continent, that is, off the southern California coast (cf. Report U. S. geogr. surveys west of the one hundredth meridian, VII, Archæology, Washington, 1879, 26, 38–39, 44).

The Fuegian plank boat is not of Peruvian origin, as the Peruvians had not this form of water craft and, besides, their influence did not extend so far south.

Nor is it of European introduction. It was found as early as 1558 by Cortés Hojea in Coronados Gulf, and was in all probability seen by him as far south as Taitao Peninsula five years earlier. In 1558 it was the common craft in the former locality and was observed in "mucha cantidad."

Nor is it of Fuegian origin. It was not found south of Cape Tres Montes by either Cortés Hojea or Ladrillero in 1557–58, although they saw the bark canoe at many points between Cape Tres Montes and the Strait of Magellan.

The later history of the plank canoe shows that the Fuegians acquired it from the Chonos. Was it invented by the Chonos, or did they in turn acquire it from the southern Araucanians?

Admiral Fitz-Roy expressed the belief that "the Chonos people taught the Huilli-che how to make" it (*a*, 380). But as far as our evidence goes the conclusion that the Chonos acquired the art from the Araucanians is much more probable.

Geographical conditions were as favorable for the advancement of boat building among the southernmost Araucanians of Coronados

Gulf and the Chilotan Islands as among the Chonos, both peoples being archipelagic and seafaring. Cultural conditions, however, were much more favorable among the former, who were on a decidedly higher cultural plane, and in addition were familiar with the arts of ax making and plank cutting, arts which would easily lead up to the use of wood in boat building.

The ax was of sporadic occurrence only among the Chonos (cf. Introduction under Chonos: Culture), but polished stone axes were common among the southern Araucanians (cf., e. g., Medina, *a*).

The alerse tree, which grew on the mainland, was so evenly grained that planks could be made from its wood by mere splitting with axes and wedges, and did not require to be dressed with the adze or plane (King, 282; González de Agüeros, 124–125; Fonck, I, 19–23). Toward the end of the eighteenth century the Araucanian-speaking natives of the Chilotan Archipelago commonly made their huts with walls of "laurel" planks and roofs of grass (González de Agüeros, 111–112). A century and a half earlier Brouwer found the Chilotans busily engaged in plank making; he describes their houses as being low, with one door, and roofs of grass (64; *An. hidr.*, XVI, 61). Farther north, among the Araucanians of the mainland, Pedro de Valdivia had found, in 1551, "casas . . . mui bien hechas y fuertes con grandes tablazones, y muchas mui grandes, y de a dos, cuatro y ocho puertas" (carta IV, in *Col. hist. Chile*, 1861, I, 55, and in Gay, Doc., I, 142). Cortés Hojea in 1558 speaks of the houses of the "province of Ancud," that is, Chiloé, as being of large size and with four to six doors (Goicueta, 516, 519).

The plank-making industry was no doubt pushed forward by the Spaniards, but the use of planks in hut building among the southern Araucanians pretty clearly antedates the Spanish conquest. It is not surprising, therefore, that these archipelagic seafaring Araucanians should have introduced the use of planks into their arts of boat building.

It may be recalled, too, that plank boats were found *in abundance* by Cortés Hojea among the Coronados Gulf Araucanians, and are merely mentioned as being in use among the Chonos, and that the general cultural migratory drift in this territory was from north to south, that is, from the Araucanians to the Chonos, not vice versa.

For the foregoing reasons it appears much more probable, although not strictly demonstrated, that the Fuegian plank boat originated among the southernmost Araucanians, from whom it passed successively to the Chonos before 1553 or 1558, to the natives south of Taitao Peninsula later, and to the Alacaluf of the Strait sometime around the middle of the eighteenth century.

Plank boat versus bark canoe.—Dr. Graebner maintains (*a*, 1018) that the Fuegian bark canoe is "ein Ausläufer des letztgenannten

Typus [i. e., the plank boat], sicher nicht sein Urbild." Dr. Friederici, on the contrary, holds (*a*, 43) that "die Dalca ist nachweisbar aus dem eben beschriebenen Kanu [i. e., the bark canoe] der Magalhães-Strasse entstanden." A third possibility is the independent development of the two boats, the plank boat from the dugout which was in common use among the southern Chileans (Rosales, *a*, vol. I, 173–174), and the built-up bark canoe from a hypothetical one-piece bark in distant pre-Columbian times.

The finding of the built-up bark canoe from the earliest days of Magellanic discovery among natives so far removed from the sphere of Chonoan or Chilotan influence as those of the eastern end of the Strait of Magellan seems to argue against Dr. Graebner's hypothesis; while the apparent absence of types intermediate between the plank boat and the dugout, such as are found in Polynesia, makes somewhat against the third possibility above mentioned, so far as the origin of the plank boat is concerned.

As for the second theory, it is true, as Dr. Friederici says, that the slabs of beech bark were very thick—almost true planks in bulk. Moreover, given the existence of the beech-bark canoe in southern Araucanian waters—probably prior to the Araucanian invasion—the substitution of wood for bark would have been a readily suggested and easily realized improvement among a plank-making people. Nevertheless, such a genesis of the plank boat from the bark canoe, while the more probable of the three theories, can hardly be said to be demonstrated.

Plank boat and Pacific influence.—If the Kulturkreis theory should prove, with further research, to apply to South America as well as it appears to apply to Indo-Oceania, there will be some ground for suspecting an ultimate Oceanian origin for the Chonoan-Araucanian plank boat, as Dr. Graebner holds. Prof. Dixon (53–54), even though rejecting in the main the theory of the Oceanic origin of American cultural strata, leaves open to a certain extent the question of the possible Oceanic origin of some elements, including the plank boat, of American aboriginal culture.

In the present state of the evidence, however, a native origin of the Chonoan-Araucanian plank boat seems more probable. The substitution of planks for bark slabs would under the circumstances have been an easy step for the southern Araucanians or Chonos, just as in recent times the Fuegians have readily substituted iron and glass for bone and shell in their weapons and tools. Moreover, the archipelagic conditions under which these Indians were living were a powerful stimulus to the development of the art of boat building, as such conditions were in the Caribbean, the Santa Barbara Islands, and the northwest coast of North America. Again these Indians were intelligent and inventive enough under the pressure of local needs to construct a plank boat that could be easily taken apart for portaging, a bigger cultural leap perhaps than the substituting of the more durable and stronger planks for the fragile and soon worn out bark.

Then, too, although technically the Chonoan boat is of an advanced type, actually it is a rudely modeled and leaky craft. Compared with the Polynesian or Melanesian plank canoe, the Fuegian is markedly inferior in workmanship. There is, besides, no trace, even rudimentary, of the Polynesian outrigger, and it seems a far cry, as Prof. Dixon recalls, to Melanesia and the area of Melanesian influence.

Textile and Fictile Products

Weaving, plaiting, and twisting.—The fiber and dog's hair mantles used by the Chonos and the Ona medicine-man's hair mantle have already been mentioned. No details on methods of manufacture are available. The "Coucous" used to spin a sort of blanket of down (A. Campbell, 59).

Twisting and plaiting in fiber, sinew, etc., are common among the Fuegians.

For sewing skins or bark, an eyeless needle or awl is used by the Fuegians. Among the Onas at least it is sometimes hafted (C. Gallardo, 270; Outes, *b*, 290). Among the Yahgans a kelp sheath is used to protect the point of the awl when not in use (Hyades, *q*, 306).

Baskets.—The common form of basketry found among the three Fuegian tribes is of the half-hitch coiled variety made of rush with or without foundation. There are two types: A simple half hitch with finer meshes, and what appears from the illustrations (Hyades, *h*, 517; *q*, pl. XXXII, fig. 8) to be a wrapped or knotted half hitch with larger meshes. There is among the Yahgans at least a third variety, a crudely woven type (Outes, *d*, 138, fig. 142; cf. also Hyades, *q*, 303, under *tçaouanouch*).

The two varieties of coiled basketry are of uniform weave over the whole Fuegian area. Dr. Skottsberg states (*d*, 601; *b*, 267) that "the Yahgan types figured by Hyades are rare" among the West Patagonian Alacaluf; judging, however, by the illustrations (*d*, fig. 142; *b*, fig. 13) of the common West Patagonian type, there seems to be practical identity of weave between this and Dr. Hyades' large-mesh variety.

Coiled baskets are not so common among the Onas as among the Yahgans (C. Gallardo, 264), and according to Dr. Dabbene (*b*, 249) are made by the southern rather than by the northern Onas. This fact and the similarity between the Ona and Yahgan names for basket (cf. Comparative Glossary, Group VI, 3, and note 2) would suggest that the Onas have perhaps borrowed this cultural element from the Canoe Indians.

The coiled baskets approximate more or less to an oblong spheroid in shape and have a carrying handle of thong or plaited rush. They are usually neatly made. The only instrument used in their manufacture is a bone or wooden awl.

For the comparison of Fuegian basketry with half-hitch coiled basketry from other parts of the world, see especially Mason, *b* and *d*, and Graebner, *c*. Coiled carrying nets, such as are found sporadically on the American Continent, are not reported from Fuegia.

Buckets.—Cylindrical bark buckets are used by the Yahgans and Alacaluf for carrying and holding drinking water. Bark buckets were also used by the Chonos (Rosales, *a*, vol. I, 151; *b*, in Medina, *a*, 186). The Onas ordinarily employ a skin bag for holding water (C. Gallardo, 288).

Bags and pouches.—The Onas make use of more or less rectangular envelope-like bags, usually of guanaco skin, for carrying small objects, food, water, etc. (C. Gallardo, 286–288; Dabbene, *b*, 247–248). These rectangular skin "envelopes" are peculiar to this tribe. For the smaller bags, fox skin or bird skin may be used (C. Gallardo, 287; Cojazzi, ill. opp. p. 40). Other small bags made of bladders, intestines, etc., are used for holding oil or pigments (C. Gallardo, 286; Cojazzi, loc. cit.).

The Yahgans make little pouches of seal or penguin skin for holding small objects; of the bladders or windpipes of seals or porpoises for holding ochre and fire flints; of the crops of geese or stomachs of seals for holding oil (Hyades, *q*, 306–307, 350).

The Alacaluf use pouches of sealskin or seals' intestines for holding small objects (Skottsberg, *d*, 602; Coppinger, 119; cf. also Vargas Ponce, *a*, 343; and the bags for red earth found by Sarmiento near Hanover Island, Iriarte's ed., 123, *An. hidr.*, VII, 446–447).

Boxes.—Both Dr. Coppinger (119) and Dr. Skottsberg (*d*, 601) report finding among the Alacaluf circular wooden boxes with lids. These boxes, which contained small objects, like arrowheads, etc., have not been observed among either the Yahgans or Onas.

Pottery.—No pottery of even the crudest kind has ever been found among either the Chonos (Goicueta, 484–485, Fallos Channel natives; Ladrillero, 464, ditto, 473) or the Fuegians. Dr. Lovisato found none in the Elizabeth Island middens; suitable clay is not, however, entirely wanting in Fuegia (Lovisato, *b*, 103–104).

WEAPONS

The characteristic weapon of the Chonos, Alacaluf, and Yahgans is the spear or harpoon, while that of the Onas is the bow and arrow.

Spear.—The spear is used both for fighting and hunting by the Chonos, Yahgans, and Alacaluf. The Yahgan shaft is said to be octagonal to decagonal in section, the Alacalufan circular (Colini, 159–

160; Lovisato, *b*, 135, 138; Snow, *a*, vol. II, 15; Hyades, *q*, 301; G. Forster, II, 501, angular among Christmas Sound natives). Some shafts in the collection of the National Museum at Washington are nearly rectangular. The Fuegian shaft is from 2½ to 4 meters long. The shank is cut with single or serrate barbs arrayed unilaterally or bilaterally and has a notched tang (Hyades, *q*, 301–302, 356; Cojazzi, ill. opp. p. 123; Outes, *d*, 139, fig. 144). The shank is lashed to the split end of the shaft with thong or sinew. Occasionally two shanks are attached to the same shaft, or from two to four spears are lashed together (cf. supra, under Fishing).

The Chonos and canoe-using Indians south of Taitao Peninsula used a bone-headed spear (García, *a*, 30; Sarmiento, Iriarte's ed., 91, 123, *An. hidr.*, VII, 428, 446; Alex. Campbell, 58; in Prévost, XV, 388; cf. also Byron, *a*, 18, 142, and Benito Marin, in González de Agüeros, 235). The single barbed "puñales de hueso" found by Cortés Hojea (Goicueta, 505, 518, 520) and Ladrillero (464, 473, 490) were very probably bone spearheads (cf. Bougainville, 2d ed., I, 293); Vargas Ponce (*a*, 347) speaks of a "puñal de hueso" attached to a shank.

The shank of the ordinary Yahgan and Alacalufan spear is preferably of bone, though at times wood is used (Hyades, *q*, 302, 356; Fitz-Roy, *a*, 139; Labat, in Marcel, *a*, 491; *c*, 108). The Alacaluf and apparently the Yahgans, too, formerly used sometimes barbed spearheads of flint or stone (Du Plessis, in Marcel, *a*, 491; Th. Bridges, *b*, Mar. 1, 1873, 30; Aug. 1, 1884, 182; Coppinger, 119–121; cf. also Bastian, I, 17; O'Sullivan, 49) shaped like arrowheads (Vargas Ponce, *a*, 347; Wallis, in Hawkesworth, 1st ed., I, 391, 2d ed., I, 171, "javelins . . . pointed with flint, which was wrought into the shape of a serpent's tongue"). Dr. Coppinger found in the Tom Bay kitchen middens at 4 feet below the surface a bone spearhead different from those now used; "instead of being rounded, it was flattened from side to side, like a very large arrow-head" (58).

The Alacaluf sometimes make a very simple wooden spear of a pointed stick (Cojazzi, 123). A shankless spear, with a fire-hardened point, is said to have been used by the "Caucahues" [=Chonos] (Pietas, in Gay, Doc., I, 504; cf. also Bastian, I, 17).

The Onas use a shorter spear, with a shaft about 1½ meters long and a unilaterally barbed bone shank, for fishing and hunting (C. Gallardo, 204, 282–283; Th. Bridges, *i*, in Hyades, *q*, 8–9). A shorter spear is also sometimes used by the Yahgans (Hyades, *q*, 301–302; Ross, II, 305) and Alacaluf (Vargas Ponce, *a*, 347).

Neither the Chonos nor the Fuegians use any kind of spear thrower, nor have they shields or armor.

Harpoon proper.—The Fuegian harpoon is of the simplest and most primitive type (cf. Mason, *c*), being merely the ordinary spear, with the bone shank attached loosely to the shaft with a short (Hyades, *q*, 354; Mason, *c*, 213) or 15–20 meter thong (Bove, *a*, 797; *b*, 140; *c*, 132; *d*, *Arch.*, 295; Colini, 160), or thong of various lengths (Weddell, 165). The Fuegians' harpoon is so like their spear and so little an advance upon it that the presumption is against a European origin.

Knives.—The Yahgans at the time of the French Cape Horn expedition in 1882–83 had only knives made of a sharp-edged mussel shell lashed with thongs to an oblong stone haft (Hyades, *q*, 299; Colini, 161; Myres, ill.), although like the other modern Fuegians they made a chisel-knife out of a hafted bit of iron hoop. Shell knives were used by the Alacaluf also (Fletcher, in Hyades, *q*, 3).

Vargas Ponce reported (*b*, 25) bone knives among the Alacaluf of the Strait. The "puñales de hueso" seen by Cortés Hojea and Ladrillero in the West Patagonian channels may rather have been spearheads, as noted above under Spear, p. 206.

Stone-headed daggers or knives were found among the Yahgans by L'Hermite (1643 ed., 42, "ende steene messen / die scherp snyden," Commelin, II, 28, Decker's tr., 30, de Brosses, I, 444) and Weddell (181), and among the Alacaluf by Du Plessis (Marcel, *a*, 492; *c*, 109), Byron (*b*, in Hawkesworth, I, 80) and Capt. King (55, 148). The flint dagger heads found by Weddell were of the same shape as the arrowheads and were "inserted in a handle about 9 inches long; and this they probably use as a stiletto" (181).

According to Father Pietas (Gay, Doc., I, 503), the Chonos had adzes, chisels, and knives of stone. These, however, like the axheads which have been found in the Guaitecas Islands were not unlikely of Chilotan origin.

Capt. Bove dug up in Yahgan territory two large worked flints shaped like arrowheads (Bove, *c*, ill. opp. p. 124; Lovisato, *a*, 199; *b*, 101–102) and Dr. Hahn also found three very large points (Hyades, *q*, 361, pl. XXX, figs. 9, 10, 11). Of the latter three, two were classed as spearheads by Prof. Mortillet (212), while Dr. Outes believes one to be a spearhead and one at least of the other two to be arrowheads (*a*, 412, 397–398). Those found by Capt. Bove are classed among the arrowheads by Dr. Outes (*a*, 397). It is quite possible, however, in view of Weddell's description above noted, that these flints or some of them may have been used as dagger heads.

Bow and arrow.—A. Distribution: The Ona and his bow and arrow are inseparable. It is his chief and almost his only weapon of war and the chase.

Among the Yahgans the bow and arrow has occupied a very subordinate position. It has never been reported as used in fighting, except in general mêlées, when anything at hand, including the arrow, may be employed (Hyades, *q*, 374). It was used in games and dances (Th. Bridges, *k*, 239–240), and sometimes the eastern and northern Yahgans used it to hunt the guanaco (Fitz-Roy, *a*, 187;

Martial, 192), although they also used the spear for this purpose (Hyades, *q*, 356). It was chiefly used, however, for killing birds (Hyades, *q*, 300, 360; W. H. B. Webster, I, 184; Fitz-Roy, *a*, 184).

During the last part of the last century it was rarely used at all by the Yahgans (Th. Bridges, *j*, 314; Hahn, *b*, 1534; *c*, 338; Hyades, *p*, 336; *q*, 360; cf. also Th. Bridges, *b*, Mar. 1, 1873, 30, and Aug. 1, 1884, 182). Dr. Lovisato could find no Yahgan who was able to chip an arrowhead (*a*, 198; *c*, 722), while, according to Capt. Martial (192, 203; cf. also Hahn, *c*, 340), glass and obsidian arrowheads had to be procured from the Onas. The bow and arrow was used by the Yahgans between Banner Cove and Blamefield Harbor (Despard, *b*, 732), and is mentioned in the Oumoara legend (Martial, 213).

Some of the explorers who visited the Yahgans in the earlier part of the last century found them in possession of the bow and arrow (Fitz-Roy, ll. c. and *a*, 139, 186, and in King, 430; Weddell, 179–180; W. Webster, I, 184; Ross, II, 305; Colvocoresses, 39), but it was not common; Capt. Snow makes no mention of it, nor do three of the chroniclers of the Wilkes and Ross expeditions (M'Cormick, Pickering, Wilkes).

Both of the very early explorers in Yahgan territory reported it in use among the natives: d'Arquistade at Orange Bay in 1715 (Martial, 269) and L'Hermite at Nassau Bay in 1624 (1643 ed., 42, "eenige hebben pylen ende bogen," the arrows with points of stone; Commelin, II, 28; Decker's tr., 30; de Brosses, I, 443–444).

The Alacaluf of the Strait of Magellan and the adjoining waters have used the bow and arrow normally from the earliest times (Narbrough, 66; Duclos-Guyot, *a*, 643; Bougainville, 2d ed., I, 292–293; J. Cook, *b*, vol. II, 183; Vargas Ponce, *a*, 340–341, 346; *b*, 59; Coppinger, 119–121, 123; King, 54, 76, 226). Bougainville states (loc. cit., 293) that the Port Gallant natives used it "plutôt contre le gibier que contre les ennemis," and Vargas Ponce that it was used in killing birds (*b*, 59; cf. also *a*, 340–341). Practically all accounts of unfriendly encounters with the Alacaluf of the Strait, and for that matter with the Yahgans and the West Patagonian channel Alacaluf and Chonos, report the natives as attacking with spears, knives, clubs, slings, and stones—never with the bow and arrow (cf., e. g., Ulloa, *An. hidr.*, V, 481; Duclos-Guyot, *b*, 682; King, 55, 227; Coppinger, 43, 63, 112–113; Skottsberg, *d*, 586).

Among the Alacaluf of the West Patagonian channels the bow and arrow was used very little, and in earlier times apparently not at all. Some of the nineteenth century visitors found it in use in the channels just north of the western end of the Strait (Child, 246, 249, and Vincent, 124, in Smyth Channel; Cunningham, 446, at Sholl and Fortune Bays; Du Valdailly, 294–295, at Isthmus Bay), and it is occasionally reported from points much farther up the coast (Giglioli, *b*, 244, Puerto Bueno; Aylic Marin, 115, Port Grappler; cf. also Brassey, 137–138). Capt. Low told Admiral Fitz-Roy (*a*, 194), that he had seen arrows used as a part of a symbolic declaration of war, and Capt. Steele informed Dr. Skottsberg (*b*, 271) that the natives of the Gulf of Peñas district use the bow and arrow in hunting huemuls. But this weapon must be rather uncommon among the Channel Alacaluf, for neither Dr. Coppinger (54) nor Dr. Skottsberg (*b*, 270; *c*, 96; *d*, 604) observed any at all among them.

In the middle of the eighteenth century, Bulkeley (anon. ed., 98; other 1743 ed., 130) reported the natives of the western end of the Strait as having only clubs, while Alex. Campbell (58; and in Prévost, xv, 388) mentions darts and clubs as the weapons of the Chonos. According to Byron (*a*, 129) the Chonos used "bows and arrows sometimes, but always the lance."

Ercilla (canto 36) found the "arco i carcax" among the Chilotans, but apparently it was uncommon; the weapons ordinarily mentioned by writers on Chilotan culture are the lance and macana (cf. Goicueta, 514; González de Agüeros, 73; Brouwer, 63; *An. hidr.*, XVI, 60).

No arrowheads have, it seems, been dug up or found in Chonoan territory nor in the archipelagos to the south (Medina, *a;* Coppinger), although such artifacts have been found in abundance along the Chilean coast north of Chiloé. The narratives of Goicueta, Ladrillero, and Father García describe in some detail the arms of the natives south of Chiloé to the Strait, but make no mention of the bow and arrow, nor is it mentioned by Father Rosales, Fathers Marin and Real, Sarmiento, by the accounts of the Ulloa expedition, nor, as far as the present writer has found, by any of the earlier sources,[1] except Byron, as noted above, on the culture of the Chonos and their neighbors to the south as far as the Strait.

To sum up: The bow and arrow is the characteristic and almost exclusive hunting and fighting weapon of the Onas. The Yahgans used it comparatively little, the Chonos and Channel Alacaluf still less, and in earlier times probably not at all. It is in common use among the Alacaluf of the Strait, but among the Yahgans, Alacaluf, and Chonos it is normally used as a hunting weapon only, especially in small-game hunting, never in fighting. In their ordinary hunting these three peoples use the spear or harpoon and the sling; in their fighting, the spear, the knife, the club, the sling, and stones.

B. Description: Excellent and minute descriptions of the Ona bow and arrow are given by Drs. Cojazzi (43–51, ill. opp. pp. 42, 45, 46, 49, and 51) and C. Gallardo (272–282). The following is a summary account:

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[1] Ponce de Leon (in Medina, *c*, 424) ascribes "flechas" to the natives "hasta cerca del Estrecho," but by "flechas" he may have meant spears, and he may have been referring to the natives of the Strait itself; at any rate, he had not himself been among the West Patagonian natives.

Bow: Curved self bow; length, from a little over a meter to 1.34 and 1.60 m.; section, ovate triangle or rounded sector with apex toward cord; shape, thickest in center, tapering to rounded points at ends; string, of twisted sinew; attachment of string, a running or bowknot at one end, wound and knotted at other. Arrow: Head, triangular, stemmed and barbed, of stone, bone, or glass, 2–8 cm. long, the stem fitted into a socket in the shaft and lashed with sinew; no foreshaft; shaft, 63–76 cm. long, slightly thicker in middle and tapering toward ends; feathering, two half feathers, 3–4 cm. long, lashed radially to shaft with very fine sinew or gut. Quiver: Rectangular, of sewn skin.

The Yahgan and Alacalufan bows, arrows, and quivers are not only in essentials, but also in most all of the above details, identical, as far as our information goes, with those used by the Onas (cf. Hyades, *q*, 298, 300, 360–361, pl. xxx, figs. 3–8; Skottsberg, *c*, 96; Cunningham, 122; Martial, 192; Weddell, 180; Fitz-Roy, *a*, 184; Narbrough, 66; Coppinger, ill. opp. p. 34, figs. 6–7).

There are, however, minor differences. The Yahgan bows seen by Weddell (180) and Admiral Fitz-Roy (*a*, 184) were smaller, being, respectively, 3 feet 8 inches and 3 feet to 4 feet long, and most of the former had strings of seal thong. The Alacalufan bows and arrows are not as well made as the Onan (Cojazzi, 124), while, according to Dr. Lovisato (*b*, 138, also cited by Colini, 159), the Alacalufan arrow shafts are a little shorter (cf. also Skottsberg, *c*, 96)—somewhat more than 60 cm.—and less smoothly polished, the heads less skillfully chipped and less securely tied to the shaft, and the quivers smaller and less carefully sewn. The Alacalufan arrows seen by the de Córdoba expedition were 2 to 3 Spanish feet long (Vargas Ponce, *a*, 346; *b*, 25; Spanish foot = 10.968 inches), while a bow collected by Bougainville is only about 35 inches long (Hyades, *q*, pl. xxx, fig. 3). The Yahgans have never been reported as using a quiver.

According to Drs. Cojazzi (45) and C. Gallardo (275–276), the Onas formerly chipped their flint arrowheads by percussion, although they use the pressure method now. The statement anent the Onas' former use of percussion needs confirmation; as far as our information goes, all three Fuegian tribes used pressure with usually a bone flaker (Lista, *b*, 129, Mánekenkn; Segers, 67–68; Lovisato, *b*, 137–138, also cited in Hyades, *q*, 361–363; Martial, 203; Coppinger, 119–120; Topinard, 775–776, "pression ou écrasement"). See full description of methods: Onan, in Segers, 67–68; Lovisato, *b*, 137–138; C. Gallardo, 275–276; Cojazzi, 45; Alacalufan, in Coppinger and Topinard, ll. c.

Among all the Fuegian tribes glass has almost entirely replaced stone and the less commonly used bone as the material for arrowheads.

No poison is used by the Chonos or Fuegians on their arrow points (Hyades, *b*, 1347; *p*, 337; *q*, 363; Lovisato, *a*, 195; *b*, 138; Th. Bridges, in Hyades, *q*, 9; Dabbene, *b*, 255; Furlong, *d*, 223; *i*, 11; *j*, Juliet, 328). See also comments in Author Bibliography, under Bourne and H. V. H. Prichard.

The Onas make very small bows and arrows for their children to play with (Lovisato, *c*, 721; Cojazzi, 49; C. Gallardo, 350; Beauvoir, *b*, 204; specimen [perhaps Alacalufan or Yahgan] in National Museum, Washington).

The Onas polish their arrowshafts with a discoid rubber of soft stone (Outes, *b*, 295; Dabbene, *b*, 254; C. Gallardo, 271), and then with leaves or the mixed wood and stone dust on a bit of cloth or skin (C. Gallardo, 271; Cojazzi, 44). The pitch sometimes used in arrow making comes from shipwrecks (C. Gallardo, 263; Cojazzi, 47; Hyades, *q*, 362).

From the kitchen middens in Yahgan territory have been taken several chipped flints shaped like arrowsheads, but larger than most of those now in use (references supra, under Knives; also Dabbene, *b*, 185). Those found by Capt. Bove were about 75 and 90 mm. in length, those by Dr. Hahn about 60, 85, and 90. The smallest of the latter three was of the unstemmed type not found among the modern Fuegians. Whether the other flints were knife or spear heads or just very large arrowheads can not be definitely determined. They are certainly quite above the normal modern arrowhead in size. Nevertheless, Dr. Gallardo mentions an exceptionally large modern one 69 mm. in length (279) and Dr. Cojazzi a maximum of 80 mm. (49); moreover, the largest four flints from the middens are quite similar in shape to many of the modern arrowheads figured by Dr. Cojazzi (ill. opp. pp. 45 and 46).

Arrow release.—Of the Ona arrow release, Dr. Cojazzi writes (49): "The string is generally pulled by the right hand index finger and thumb, which grasp the nock; when, however, they wish to shoot very far, they use in addition the middle and ring fingers, laying them directly on the string." (Cf. also Dabbene, *b*, 254–255 and Beauvoir, *b*, 204.)

Affinities and origin of the Fuegian bow and arrow.—Certain points of resemblance between the Fuegian and North American bow, arrow, and quiver have been adverted to recently by Dr. Erland Nordenskiöld (q. v., in Author Bibliography). The whole question brought up by him will, however, require more minute investigation.

The modern Fuegian arrowhead is invariably stemmed, and in so far at least resembles more closely the Patagonian than the Chilean type. Of 601 Patagonian arrowheads examined by Dr. Outes (*a*, 376–396) only 78 were unstemmed, 88 were of exceptional form, and 435 were stemmed. The Chilean unstemmed arrowheads were, on the contrary, abundant, while the stemmed ones were rare (Outes, *a*, 400; cf. also Medina, *a*, figs. 147–151, 46–57, 59–65, 69, 71–73).

The heads found by Capt. Bove, whether used for arrows, spears, or daggers, are very similar to a common Patagonian type (Outes, *a*, 397; Lovisato, *a*, 199; *b*, 101–102).

Then, too, on the Pacific coast from the Guaitecas Islands to the Strait of Magellan there appears to be a complete or nearly complete hiatus—a territory where the bow and arrow has been very little used, and in earlier times, to judge from the narratives, especially of Goicueta, Sarmiento and Ladrillero, not used at all. The middens of this territory have yielded no arrowheads (cf. Coppinger), although such flints are dug up in abundance farther north on the southern Chilean mainland coast.

The above two groups of facts would seem to indicate that the use of the *stone* arrowhead has probably been introduced into Fuegia from Patagonian rather than from Chilean sources.

The further question arises as to the use of the *bow and arrow* itself. Did the Canoe Indians bring this cultural element with them when they first migrated into Fuegian waters? Or did they acquire it later from the neighboring Onas and Patagonians?

(1) *Archeological evidence.*—In the very old middens of Elizabeth Island Dr. Lovisato found no arrowheads at all (*b*, 103). The supposed arrowheads found by Capt. Bove and Dr. Hahn may, as we have seen, have been spear or dagger heads; and, moreover, there is no evidence that they are of very ancient deposition. The negative archeological evidence would in itself show only the probable earlier absence of the *stone arrowhead;* but the ethnological evidence seems to carry us a little farther.

(2) *Ethnological evidence.*—(*a*) Distribution: The use of the bow and arrow among the Yahgans and Alacaluf decreases in proportion as they are removed from contact with the Onas and Patagonians. Among the comparatively isolated southern Yahgans and West Patagonian Alacaluf it is either entirely absent or very slightly used, while among the Alacaluf of the Strait and the eastern Yahgans it is or was common enough. But in all cases it has a subordinate position, being utilized, not in fighting, but with rare exceptions only in small-game hunting. The fact that the Foot Indians' chief weapon is the bow and arrow, while the Canoe Indians' is the spear or harpoon, may be partly accounted for by the contrasting needs of a land and a seafaring people, but the decidedly greater rarity of the weapon among the West Patagonian Alacaluf and the southern Yahgans can not be entirely explained on this ground, since small game for which the bow and arrow are chiefly used by them is as common an article of diet among them as among the eastern Yahgans and Magellanic Alacaluf. (*b*) Manufacture: There is a close resemblance, even down

to details, between the bow, arrow, and quiver used by the Foot Indians and those used by the Canoe Indians—a resemblance so close as to suggest strongly a common origin. But the differences that exist seem to point to the Canoe Indians as the borrowers; for the Yahgans use no quiver, and many of them have been found unable to flake their own arrowheads; while the Alacaluf, although able to make their own bows, arrows, and quivers, make them, as has been noted, far less skillfully. The Ona bow and arrow, on the other hand, is, though simple in form, of splendid workmanship.

The fact, too, that there is geographical continuity in the use of the bow and arrow between the Onas and their mainland cousins, the earlier Patagonians (Outes, *a*, 254), while such continuity is lacking, as we have seen, on the Pacific coast, would appear to corroborate the above.[1]

In view of the archeological evidence taken in conjunction with the ethnological, it is not unlikely that the Yahgans and Alacaluf and probably the Chonos were originally a spear people, who after their arrival in their present habitat acquired the bow and arrow from neighbors, the Onas and Tehuelches. This conclusion is advanced with much reserve, but the grounds for it, though far from being demonstrative,[2] seem sufficiently reasonable and convergent to justify their publication. Further investigations among the middens will perhaps clear up the point more definitely.

Clubs.—The club is a common hunting and fighting weapon among the Yahgans and Alacaluf as it was among the Chonos (Byron, *a*, 141; García, *a*, 25, 30, 38; Goicueta, 518; Lozano, II, 559; Rosales, *a*, vol. I, 105). Details regarding its form are usually lacking. The clubs found by Bulkeley in use by some natives met near the western end of the Strait were described as "like to our cricket batts" (anon. ed., 98; other 1743 ed., 130) and those found by Sharp in 1681 near Duke of York Island as "like our bandies" (Ringrose-Exquemelin, 1684–85 ed., II, pt. 4, ch. 23, p. 182; 1893 ed., 470). Dr. Skottsberg gives an illustration (*b*, 270; *d*, 605) of a heavy club seen at Port Grappler; it was made of *tepú* root and was 60 cm. long (cf. also Skottsberg, *c*, 96).

The Onas apparently use the club rarely and then only for hunting (Th. Bridges, *i*, in Hyades, *q*, 8).

On the throwing club see infra, under Bolas.

Morning-star club heads.—Two peripherally bossed or "morning-star" perforated stones have been collected in Fuegia, one by Dr.

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[1] The linguistic evidence is not very conclusive. Cf., however, Alacalufan *árce, árscel, érkscé, arca, a·rxkje:l*, with Tehuelchean *arekechul*, for arrow (see Comparative Glossary, Group VI, 4, 5, and note 3); Alacalufan *scétrc* (Bo), with Onan *shayat'rrr* (Furlong, *k*), *seter* (Bo, Hauss), *sheltrr* or *chétr* (=bird feather, Bo, *b*), for arrow feather.

[2] In view of the almost universal diffusion of the bow and arrow over the American Continent it may, for instance, be plausibly argued that the Canoe Indians on their first arrival in Fuegia might have had bows and bone or wooden headed arrows which they later abandoned, some of the Canoe Indians at a still later date adopting the Ona-Tehuelche bow and arrow.

Lovisato (Colini, 240; Lovisato, *c*, 723), the other by Prof. Furlong (collection in Amer. Mus. Nat. Hist., New York). The latter was obtained at Navarin Island, the former from Mr. Lawrence of the Ushuaia English mission.

Dr. Lovisato thought the one obtained by him "un semplice pezzo di tufo, ridotto a quella forma dai Yahgan a forza di levigare le aste e le punte delle loro armi" (*c*, 723), but from the description given by Dr. Colini (240) [1] it is evidently a morning-star club head, similar, as Dr. Colini notes, to the ones found commonly in South America, especially on the Pacific coast.

It is improbable that such club heads were ever made or used by the Fuegians. They are almost certainly of foreign origin, acquired through barter or exchange and kept as curios or what not (cf. also discussion of the whole question of perforated stones in America by Dr. Outes, *a*, 437–445).

Stones.—Stones are commomy used, especially in fighting, by the Chonos and Canoe Indians. They are either thrown or else held in the hand for pounding.

Slings.—The sling is of common use among the Yahgans and Alacaluf. Whether or not it was used by the Chonos our sources do not say.

It was formerly used somewhat among the southern Onas (Lista, *b*, 129, "poco usada"; Dabbene, *b*, 252), but is now rare. Dr. Gallardo found Onas who did not know what it was used for, and he considers that it was almost certainly introduced among the Onas from Yahgan sources (284). It is mentioned, however, in the Ona Kuanip legend (Cojazzi, 79), though possibly as a later accretion; the Ona name for it, *shincay* (Gallardo, 284), *shinke, sinke, shienikey* (Beauvoir, *b*, 203, 135), is quite different from the Yahgan name *ouataoua* (Hyades, *q*, 301), *uatawa* (Noguera), *uatta-ua* (Bove, *b*, 146).

For descriptions of the Yahgan sling, see Hyades, *q*, 301, 357–358, pl. XXX, fig. 14, and Colini, 161; of the Onan, Beauvoir, *b*, 204.

Bolas.—The following passage occurs in Dr. Ratzel's Völkerkunde (2d ed., I, 522; Engl. tr., II, 88): "Von späteren Beobachtern nicht erwähnte bolaähnliche Waffen nennt Oliver van Noort." This statement is based not on van Noort's original account, but in all probability on the following description by de Brosses (I, 301) of a weapon found by van Noort in use among the Alacaluf of Maurice Bay on the north shore of Desolation Island: "Les sauvages tuèrent deux hommes de l'équipage à coups de longues zigaïes de bois, et de lourdes masses attachées au bout d'une corde, qu'ils lancent et retirent, gardant à la main l'autre bout de la corde." This description certainly suggests the bolas, if we render "masses" as "lumps, weights," instead of "maces, clubs"; but de Brosses's description is not a literal translation of the original, being instead a paraphrase and a considerably amplified and modified one from the French (1610 edition) and the Latin versions.

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[1] "Un grande disco di pietra lungo m. 0.13 con 0.10 di larghezza, forato nel mezzo e con punti all'intorno.

The passage in van Noort's original Dutch journal reads (*b*, undated ed., said to be of 1601, p. 27; ditto in 1602 ed., Rotterdam, with two words a little differently spelled): "Dese Wilden hebben voor haer gheweer groote sware Cnodsen / met een langhe zeel daer aen / daerse mede slaen / ende langhe houte Hasegay / die sy wte hant worpen / daer van wy eenighe vonden ende aenboort brochten." There is no question here of anything but a heavy club with a long thong on it. And in this sense is the passage translated in the various versions (cf. French, 1602 and 1610, 18, and German in de Bry, I, pt. 9, 31-32, both from orig. Dutch; French, de Renneville's tr. from Commelin, II, 25). It may be added that the bolas, in its migration down the Patagonian pampas, seemingly did not reach the Strait until a century or more after van Noort's voyage (Outes, *a*, 427, 254).

A not uncommon Onan and Yahgan weapon for hunting seals from land is a spear with a thong tied to it, the other end of the thong being tied around the body of the hunter (Th. Bridges, *b*, July 1, 1879, 158; *j*, 314; *i*, in Hyades, *q*, 8-9; C. Gallardo, 204-205), but the thong would be of less or no value tied to a club. Dr. Friederici believes (*b*, 13, 66-67) that what van Noort saw was a throwing club ("Wurfkeule"). But Dr. Friederici's interpretation of the passage in van Noort seems, at the best, doubtful.

For (1) the "daerse mede slaen" qualifying "Cnodsen" certainly seems to contrast with the "die sy wte hant worpen" qualifying "Hasegay"; this conveys the impression that the clubs were used, not for throwing, as the spears were, but for smiting. (2) "Large heavy" clubs are much more likely to have been used for smiting than for throwing. (3) It is doubtful whether the word "zeel" was found in van Noort's original manuscript or not; for the passage in the Extract oft Kort verhael (van Noort, *a*) under January 8, 1600, reads: "Dese wilde hebben voor geweer sware knodsen met een lange *steel* / ende langhe houten hasegayen / diese met grooter felheyt wter handt worpen." Here there is question only of "clubs with a long *handle*." The Extract was, according to Dr. Tiele, probably published before the full journal. Whether, therefore, van Noort's original manuscript read "zeel" or "steel" remains doubtful.

If the former, a passage in Father García's diary may explain the purpose of the thong. His Caucahue or Chono companions, when swimming up to the seals they were hunting, took along a lasso and "un palo macizo como de ocho a nueve palmos de largo, que *aseguraron al cuello* para que no les embarazase el poder nadar" (*a*, 6). If, on the contrary, "steel" be the original reading, then van Noort probably saw such long clubs as the Chonos used for killing seals by knocking them on the head (A. Campbell, 58-59).

To return to the bolas: It is attributed to the Onas by a whole group of writers (Fitz-Roy, *a*, 137; Garson, 143; Colini, 158; Brinton, *c*, 330). Dr. Garson's passage is based on Admiral Fitz-Roy's, and the latter's is derived, as the close similarity in wording and matter pretty clearly shows, from Father Falkner's account of the Yacana-cunnee (111): "They . . . catch guanacoes and ostriches with their bowls." The inclusion of the ostrich shows that in all probability Father Falkner is here speaking of Patagonians, not Onas, as the rhea is not found, and as far as our information goes has never been found, south of the Strait. Moreover, none of the above writers base their statements on personal observation.

According to Admiral Fitz-Roy (*a*, 186), "Mr. Low has seen Fuegians with balls (bolas) in the northern part of their country"—a somewhat vague localization, referring, possibly, to the Gulf of Peñas Indians or to people of mixed Fuegian-Patagonian blood or culture. Dr. Skottsberg was told (*b*, 271) by Capt. Steele that the Gulf of Peñas natives use a two-ball bolas in hunting huemuls, but Capt. Steele's data on this, as on some other points, require confirmation. Finally, Dr. Cojazzi, speaking of the Alacaluf, says (124): "La boleadora è un' arma da loro molto usata"—if so, it is difficult to explain the silence of a host of first-hand witnesses, except on the ground that the weapon is of very recent importation. Father Beauvoir ascribes (*b*, 203–204) the bolas to the Onas, but other first-hand authorities, though describing Ona culture in detail, make no mention of this weapon as being in actual use by them.

Finally, bolas balls, without, however, the thongs or covers, have not infrequently been found in Fuegia, one by the Skottsberg expedition at Cape Victory, in Alacalufan territory (Skottsberg, *b*, 273–274; *d*, 605), and several in Onan territory (E. Nordenskiöld, 21; Giglioli, *b*, *Arch.*, 262, repr., 246; C. Gallardo, 310; Furlong, collection in Amer. Mus. Nat. Hist., New York). These finds may point to a former use of the weapon, common or sporadic, but not necessarily. With the exceptions noted above, all first-hand sources on Onan and Alacalufan culture are silent. The bolas balls, like the morning-star club heads, may well have drifted into Fuegia as unused exotics.

To sum up: As the evidence stands at present, it would be unsafe to conclude that the Fuegians have ever actually used the bolas as a weapon, except, perhaps, in view of the testimonies of Capt. Steele and the Salesians, in very recent years.

TOOLS

This branch of material culture has been treated to a certain extent incidentally in the preceding sections. A few notes are here appended.

Scrapers.—Among skin-using tribes like the Fuegian the scraper naturally takes an important place. The Onas use a small bit of iron, stone, or glass thonged to an oblong haft, suggesting in general makeup our carpenter's plane (C. Gallardo, 269–270; Outes, *b*, 288–290). They also use as a scraper a sharpened mussel shell lashed with thong to a cylindrical stone haft, like the Yahgan shell knife (Segers, 71; Dabbene, *b*, 249). The *hafted* plane-shaped scraper is apparently peculiar to the Onas, and perhaps the Alacaluf.

Adze.—Dr. Lovisato found an artifact at Gertrude Cove which he described as "una azza di osso di baleno, magnificamente levigata" (*a*, 199), but its identification as an adze is doubtful. (For discussion, see Colini, 240, and Lovisato, *c*, 723.) Stone adzes—probably of Chilotan origin—were, according to Father Pietas (Gay, Doc., I, 503), used by the Chonos.

Ax.—The white man's ax is now in common use among all the Fuegians. To judge from the silence of the leading sources on the culture of the Yahgans and Onas, these tribes did not use the stone-headed ax (cf. Spegazzini, *a*, 6: "segun algunos" the Yahgans use stone axes—confirmation needed).

The Alacaluf formerly used the stone ax sometimes. Axheads are found at old camping sites, according to Dr. Cojazzi (124). Some of the older explorers found what appear to have been stone axes in use among the Port Famine natives (Du Plessis, in Marcel, *a*, 492; *c*, 109, "pierres taillées pour haches"; Froger, 97, and in de Brosses, II, 109, "gros caillous taillez pour couper le bois"; cf. also Duclos-Guyot, *a*, 644, "manieres de haches").

On the West Patagonian coast Dr. Coppinger "in spite of a most diligent search . . . once, but only once, succeeded in finding a stone axehead. It was of very primitive shape—being only in part ground—and was found lying among the shells of a very old abandoned kitchen-midden" (Coppinger, 52–53, ill. opp. p. 34). The earlier explorers in these parts omit all mention of the ax, while Byron (*a*, 152) and Father García implicitly (*a*, 23) and Father Rosales explicitly (*a*, vol. I, 174) affirm its absence.

The Chonos, according to Father Pietas (Gay, Doc., I, 503), used stone axes. Dr. Cunningham obtained three hatchet-heads of stone which had come from the Guaitecas Islands (335), and Dr. Medina gives cuts of two polished axheads from the Chonos Islands, and a perforated one from the Guaitecas Islands (*a*, 75–76, figs. 16, 18, 22). The axheads figured by Dr. Medina closely resemble those from southern Chile and from Chiloé, and are probably of Araucanian origin.

For other references to the stone ax in Fuegia, see the following: Benignus, 230; Figuier, 418; Sievers, 329; Skottsberg, *b*, 271; *d*, 602. Cf. also illustration of native hafting of iron axhead in Ratzel, Völkerkunde, I, 522; Engl. tr., II, 88.

Knife.—There were three kinds: (1) with pointed blades, used as daggers; (2) with terminally edged blades, used as chisels; (3) with laterally edged blades, used as our knives. The most common form is the second. For details regarding the first and second, see under Weapons. The third kind, with a blade of iron, is in use among the Onas, but is not common (C. Gallardo, 268–269; Outes, *b*, 292, ill.).

A simpler rude sort of knife was used by the Yahgans for tracing on trees the outline of bark to be cut, as was also a wooden instrument for detaching the bark (Hyades, *q*, 300). They also used a curved knife of whalebone for cutting bark (Despard, *b*, 679).

Perforators or awls.—These are made of bone, horn, or wood (Hyades, *q*, 306, pl. XXXIII, figs. 7–8; Th. Bridges, *b*, 1886, 56; Skottsberg, *d*, 602; Dabbene, *b*, 249), and among the Onas at least may be hafted (Outes, *b*, 290; C. Gallardo, 270–271). The Yahgans also use a wooden spatula to apply paint to their faces (Hyades, *q*, 306).

Wedges.—The bone wedge is used especially in splitting the four-pronged sea-urchin spears (Hyades, *q*, 299, pl. XXXII, fig. 9; Th. Bridges, *b*, 1886, 56). The Onas use a bone or small stone wedge to split the wood for their arrow shafts (Cojazzi, 44; C. Gallardo, 280).

Archeology

It may be a little inaccurate to use the heading archeology in the case of the meager remains obtained from Fuegian graves and middens. As, however, these remains throw some light on the past of the Fuegian peoples the term is probably justified, at least for the purpose of classification. Investigations thus far made in this field have been inadequate and have yielded only unimportant results. Systematic excavations in the abundant middens of the Magellanic archipelagos are urgently needed and may furnish us with important information on the past of the natives.

For the sources at hand on the subject, see the references given under Burial and Disposal of Property, and under Food (mortar and dogs), Spear, Knives, Bow and Arrow, Morning-star Clubheads, Bolas, Adze, Ax. The most important sources are Dr. Lovisato's excellent paper (*b*) on the Elizabeth Island middens, and Dr. Coppinger's account of his investigations of some of the West Patagonian channel middens.

The objects from graves and shell heaps include stone axheads, a flattened bone spearhead, some large chipped flints that may have been either arrowheads or else dagger or spear heads, a morning-star clubhead, a mortar, bolas balls, a polished bone implement somewhat resembling an adzehead, and various stone artifacts. All the above artifacts have been treated in detail in the section dealing with Material Culture. They throw very little light on the past of the Fuegian and Chonoan peoples. There is no definite evidence that the morning-star clubhead, the mortar, or the bolas were ever in actual use—the last almost certainly not in use at least prior to the eighteenth century.

Moreover, we have no reliable clue to the exact or even approximately exact age of the middens or graves or camp sites from which these remains were taken. In the Elizabeth Island middens the only ones for which there is geological evidence of greater age, Dr. Lovisato (*b*, 103) found no evidences of human industry except a bit of flint that may have been a reject.

DEDUCTIONS

From the archeological evidence supported by the ethnological and historical data some inferences may be drawn.

A. The Yahgans at least appear to be the first human inhabitants of the territory they now occupy. For (1) they have no tradition of an earlier race; (2) all local names are pure Yahgan; and (3) the crania dug up from the graves are of the same type as the modern Yahgan, although such burials are not demonstrably very ancient (Th. Bridges, *e*, 332; *i*, cited by Hyades, *q*, 18; Dabbene, *b*, 275).

B. How long ago the Fuegians first entered their present territory is very uncertain. The great linguistic differences and appreciable though lesser somatological and cultural differences between the Yahgans and Alacaluf suggest that the two tribes came at different times, the geographical position and the slightly lower material culture of the Yahgans that these latter may represent an earlier invasion. Whether the Foot Indian or the Canoe Indian was the first to reach eastern Fuegia is quite uncertain.

The length of occupancy of the archipelago is of course bound up with the larger question of the age of man in South America (cf. Hrdlička, *b*). That the Canoe Indians have occupied their present territory for a long period is evident, first of all, from the size and abundance of their kitchen middens; while these do not furnish any exact chronology, yet their magnitude and number indicate considerable age. Secondly, Dr. Lovisato found the mollusks in the Elizabeth Island middens to be of much larger size than those contained in modern middens—these larger mollusks occurring at present only in the waters of the more southern islands and around Staten Island (Lovisato, *b*, 104, 107–108). Thirdly, the Elizabeth Island middens are 6–7 meters above sea level, the deposits in them showing, according to Dr. Lovisato, that the land has subsided, and subsequently risen this much since they began to accumulate (ibid., 100, 106–107); Dr. Coppinger, too, believed he found good indications of a rise of 30 feet in the land since the date of burial of the bodies which he found in a cave at Rosario Bay, in the West Patagonian channels (Coppinger, 69–70). This third point should be viewed in the light of Dr. O. Nordenskjöld's conclusion (*i*, no. 2; *f*, 216) that since the recession of the glaciers the Fuegian islands have risen some 60 meters.

The above data go to show that the Magellanic archipelagos have been inhabited for a very long period, but it is impossible to assign even an approximate number of centuries in the present state of our knowledge.

The theory is occasionally advanced that the Onas, being, like their cousins the Tehuelches, a distinctly nonseafaring people, must have reached their present habitat at a time when Tierra del Fuego Island was still united to the mainland (Outes, *d*, 132; Dabbene, *b*, 277–278), a supposition seemingly corroborated by the native Ona tradition that they came by land from Patagonia (Beauvoir, *b*, 178, 201–202). It is doubtful, however, how much reliance can be put on such a tradition, while as for the present absence of the canoe from Ona culture we have given evidence (cf. supra, under Navigation, Onas) that it is quite possible that the Onas may have formerly made occasional use, as they now do, of some kind of water craft. Or, again, they may have been ferried across the Strait of Magellan by Canoe Indians.

C. Have the Fuegians degenerated culturally since their advent to their present habitat? Their archeological remains, as we have seen, give no indications of such a retrogression. The Elizabeth Island middens, the only ones of proven antiquity that have been investigated, show, if anything, that the earlier Fuegians were even less advanced than their modern descendants.

During the last three or four centuries Fuegian culture has remained practically stagnant, as is apparent from a comparison of the early narratives like those of Ladrillero, Goicueta, the missionaries to the Chonos, Drake, van Noort and de Weert, L'Hermite, Narbrough, La Guilbaudiere, de Labat, and Du Plessis, with the accounts of modern explorers.

Neither archeology, therefore, nor the history of Magellanic exploration has thus far shown any concrete evidence of cultural degeneration among the Canoe Indians since their advent to their present habitat.

RELATIONS

The intertribal relations of the Chonos and three Fuegian tribes, as well as the relations of the Onas and Tehuelches, have been treated at sufficient length in the Introduction to the present work.

The further relations of the Fuegians and Chonos (1) to the Araucanians; (2) to primitive South American peoples, ancient and modern; (3) to the American race in general; and (4) to some of the peoples of very low culture in Indo-Oceanica and other parts of the world, may here be touched upon or outlined.

(1) RELATIONS TO THE ARAUCANIANS

Opinions vary greatly. They may be roughly grouped as follows: (*a*) More or less in favor of some relationship between the Chonos, or

Fuegians, or both, and the Araucanians: (1) General or somatological: Giglioli, *b*, 242; Hollard, 202–203; Omalius d'Halloy, 162–163; J. C. Prichard, *b*, 450; Fr. tr., II, 203; Pi y Margall, 485; (2) Linguistic: Brinton, *c*, 325, 327; Darapsky, *a*, 29–35; *b*, 287; Figuier, 419, cf. also 416; Fitz-Roy, *a*, 188; *b*, 140; Keane, *b*, 431; d'Orbigny, *b*, vol. IV, pt. I, 185, 187, see comment under name in Author Bibliography; Peschel, Engl. tr., 1876, 200; J. C. Prichard, *b*, 450, 446; Fr. tr., II, 203, 197; Spegazzini, *c*, 132; Weule, 52; Krickeberg, 140; (*b*) more or less against such relationship: (1) General or somatological: Hoyos Sáinz, *a*, 356; Latcham, 247, and passim; (2) linguistic: Pector, *b*, 167; Brinton, *c*, 327, 329. Few of the above writers give grounds for their statements.

A. Somatology

The Araucanians are usually described as brachycephalic, which would make for absence of near relationship to the Fuegians, but fuller studies of the undeformed Araucanian skull are needed before comparative Fuegian-Araucanian cranial studies can be satisfactorily made.

B. Language

There is no lexical resemblance between Araucanian and any of the Fuegian tongues. Admiral Fitz-Roy's short comparative glossary (*b*, 142) proves nothing. Dr. Darapsky believed that he had found a remote morphological resemblance between Yahgan and the "Meso-Andine" tongues, including Araucanian (*a*, 29–35; *b*, 287). Sufficient grammatical material for a comparative study of Yahgan and Araucanian is available, but an exhaustive examination still remains to be made.

C. Culture

The Chonoan and Fuegian culture is sharply marked off from the Araucanian (cf. e. g., Medina, *a*; Rosales, *a*). The Araucanian in all probability represents a later cultural invasion. It reached to Chiloé and perhaps blended here and in the Chilotan archipelago with a possibly previously established culture similar to the Chonoan. Some few Araucanian cultural elements passed down the coast into Chonoan and Fuegian territory.

A thorough investigation of the whole field of possible Fuegian and Araucanian relationship might yield decisive results. Thus far such an investigation has not, to the present writer's knowledge, been made.

(2) RELATIONS TO PRIMITIVE SOUTH AMERICAN PEOPLES, ANCIENT AND MODERN

Dr. Medina (*a*, 110–111) was apparently the first to identify the Fuegians and Chonoans with the ancient long-headed race who peopled the southern part of South America. The question was discussed more fully by Dr. Hyades (*q*, 161–166), who found the Fuegian skull allied to the modern Botocudo skull and to the skulls from Lagoa Santa and the Pontimelo and Rio Negro paraderos. That the Fuegians and especially the Yahgans and Alacaluf are members of the widespread archaic race, skeletal remains and living survivors of which are found here and there from tropical South America to the Strait of Magellan, is unanimously held as very probable or certain by the somatologists and anthropologists who have since Drs. Hyades' and Medina's time treated or touched on the subject (Dabbene, *b*, 282; Deniker, *b;* Haddon, *c*, 77; Hamy, *c*, Decades, 5–6; *Anthrop.*, 142; Hrdlička, *b*, 179 and verbal communication; Laloy, *b*, 404; Joyce, 218, 239; Latcham, 247, 257; R. Martin, *b*, 212; Quatrefages, *b*, 545, 599; Rivet, 253–257; cf. also Verneau, *b*, 327–336). For details, see especially Hyades, *q*, 161–166 and Rivet, 253–257.

Some of the above writers are of the conviction that the Fuegians, though representing fundamentally this primordial South American type, show evidences of mixture with another type (Hyades, *q*, 164; Rivet, 257; Dabbene, *b*, 280–282; Hultkrantz, *b*, 164; Laloy, *b*, 404).

Mr. Darwin was struck by the resemblance in physical appearance between the Fuegian Canoe Indians and the Botocudos (Darwin, *b*, ch. 7; Brinton, *b*, 39–40)—a resemblance borne out especially by cranial comparisons (Hyades, *q*, 163). Dr. Brinton found no lexical similarity between the Fuegian and Tapuyan languages (*c*, 332), but such would hardly be expected. Culturally the Canoe Indians of Fuegia and the Botocudos are at about the same level, and are largely in agreement both in what they possess and in what they lack.

It has been suggested that the Onas are perhaps related through the Tehuelches to the Bororos (Haddon, *c*, 112–113; Keane, *b*, 430), by Prof. Keane on the ground of the tall stature and brachycephalism common to both the Tehuelches and Bororos. The undeformed Tehuelche skull, however, appears to be in the majority of cases dolichocephalic or mesaticephalic (cf. supra, Introduction: Onas-Tehuelches).

Migration routes.—It is sometimes assumed that the Yahgans and Alacaluf reached their present habitat by way of the Pacific coast and the Andine region (Bove, *a*, 789; *b*, 132; *c*, 124; *d*, *Arch.*, 288; Dabbene, *b*, 280–281; Furlong, *j;* Darapsky, *b*, 289). This is quite possible, considering their kinship with the Chonos and apparently (Rivet, 259) with the Changos, but there is no definite proof. That the Onas reached Tierra del Fuego by way of Patagonia we may infer from their kinship with the Tehuelches. Dr. C. Gallardo suggests that the common ancestors of the Onas and Tehuelches crossed from the New Zealand region to the southern tip of South America by a land bridge or a chain of islands (107); this theory, however, has to be judged in relation to the whole problem of American origins (cf.

symposium in *Amer. anthr.*, 1912, n. s. XIV, 1–59), as the Onas are part and parcel of the American race (as Dr. Gallardo recognizes, pp. 107–108; see also following section).

(3) RELATIONS TO THE AMERICAN RACE IN GENERAL

A. SOMATOLOGY

The Fuegians are "incontestably" (Hyades, *q*, 161; cf. also Virchow, *a*, 385) of the American race. Their kinship to the Lagoa-Santa type is additional evidence of the same.

B. LANGUAGE

The Yahgan, the only Fuegian tongue of which we have adequate morphological data, belongs to the American polysynthetic type (cf. e. g., Hyades, *p*, 339; *q*, 334–335; Darapsky, *b*, 286).

C. CULTURE

Like other Americans, the Fuegians are reserved, stoical, externally impassive. There is practically nothing un-American in Fuegian culture, which, on the other hand, contains many elements that, though of not uncommon occurrence on other continents, are of particular frequency in America, such as, for instance, fire signaling, ball game, bark canoe, tonsure, depilation, feather diadem, sling, child's cradle, etc.

(4) CULTURAL RELATIONS TO CERTAIN OTHER PEOPLES

Culturally, the Fuegians are on approximately the same low plane as, for instance, the Todas, Veddahs, Negritos and Negrillos, Sakai and Jakun, Australians, and extinct Tasmanians. This poverty of culture among the Fuegians is apparent, not only in the material, but in some respects even more conspicuously in the psychical, that is, the religious, quasi-religious, domestic, moral, economic, political, and esthetic fields. The Fuegians and other very low peoples have a great many cultural elements in common, but of greater interest, perhaps, is their common lack of a still larger number of elements which are of widespread prevalence among peoples a little higher in the cultural scale.

How should these facts be explained? Have the Fuegians, under pressure of their untoward environment, degenerated or retrogressed from a higher cultural status possessed by their remote ancestors? Or, granting that the Indo-Oceanic and other peoples of very low culture are themselves in the main not cultural degenerates, are the Fuegians and they backward, comparatively unchanged survivals from a remote common cultural ancestry? And what bearing has the Kulturkreis theory on the two preceding questions?

Several generations of anthropologists may, perhaps, pass away before these three questions can be confidently answered. The following pages represent merely an attempt to coordinate those facts and considerations which seem to have a bearing on the problem and which may lead up to a provisional or probable solution.

There is no question here of *somatological* degeneration or affinity. *Culture may* well migrate across somatological dividing lines, and may stagnate notwithstanding somatological change and differentiation.

It may be well, too, to exclude provisionally from our problem the Onas, among whom there is perhaps some ground for suspecting a certain minor cultural retrogression.

A. Are the canoe-using Fuegians cultural degenerates?

(*a*) Archeology and history, as we have seen, have furnished thus far no evidence to this effect, but rather positively indicate stagnation for the last 400 years and probably since the advent of man to the Magellanic archipelagos. It would follow, therefore, that the adverse Fuegian environment, although it may have checked advancement, has not actively brought about retrogression.

(*b*) Yahgan and Alacalufan culture shows no internal evidence of degeneration. Not only in material but in psychical culture as well, and not only in what they have but also in what they lack, the two tribes are strikingly simple and primitive. Their material culture is characterized by the absence of agriculture and domestication—excepting the dog, which is probably of later introduction—of pottery and weaving, of narcotics and intoxicants, of polished stone implements, of the spear-thrower and shield, of the fishhook, and, among the Yahgans, of the ax and net. Their skin curing, for instance, is of the simplest nature, their harpoons of the most primitive type. Their psychical culture lacks the chieftaincy, hereditary or elective, social classes, secret societies, totemism, mana, or kindred conceptions, medicines, religious paraphernalia, the arts of design, musical instruments, symbolic dances, gambling, divisions of time, numbers beyond three probably, message sticks or similar means of recording ideas. In political, economic, esthetic, and recreative culture the Fuegian Canoe Indians are on the lowest rung of the ladder. Barter, for instance, is of the nature of an exchange of presents, and there is no medium of exchange. Their esthetic culture is perhaps lower than that of any other people on earth. A glance through the summary of culture given in the present work will show that the above list could be greatly extended.

Most of the above elements which are wanting in Fuegia are of widespread, in fact of almost universal, occurrence among the other peoples of South America and for that matter of the uncivilized world.

It is easily possible that some or many cultural elements might have been lost, but it is unlikely, to say the least, that all elements of a hypothetical earlier higher culture should have vanished without leaving a trace in material or at least in psychical culture.

The plank boat, the one advanced material element, is of foreign and comparatively recent origin. The chipped flint arrowhead is probably of Patagonian-Onan provenance. The Yahgan masked dances were not unlikely borrowed from the Onas. On the other hand it seems improbable that a people like the Yahgans would have given up the use of such valuable artifacts as the ax, the fishhook, and the net had they ever possessed them.

Internal evidence, therefore, is, as far as it goes, indicative of the true primitivity of Alacalufan and still more of Yahgan culture, and affords no tangible proof of degeneration.

There are, however, some grounds, though not very solid ones, for suspecting that the Onas may have lost some elements of a former higher culture. The prominence of metempsychosis beliefs, the masked dance, the somewhat greater tendency to exogamy, the strict separation of the men into two distinct groups in the council hut (Furlong, verbal communication), might be regarded by some as rudimentary survivals of an earlier, more clearly marked, tribal division, and possibly of an earlier totemic or quasi-totemic system. It may be recalled that there is some evidence for regarding the older Patagonians, the Onas' cousins, as totemic (cf. Outes, *a*, 251–252). Still all this is, for the present at least, largely speculative. Besides, we do not know enough as yet of Ona social institutions.

(*c*) The Fuegian Canoe Indians are of the most archaic South American physical type. This somatological kinship with the primordial South Americans in itself would not be proof of cultural primitivity, but should be viewed in the light of the fact that the nearest kin both physically and culturally of the Fuegians are the distant Botocudos. This parallel coincidence of archaic physical type with very low culture in the two lowest South American groups suggests that they may have preserved in the main not only their common bodily type but their common earlier culture as well.

(*d*) The geographical position of the Alacaluf and Yahgans makes for the same conclusion. Isolated among the archipelagos of the tip of the continent and leading a life so different from that of most of the mainland peoples, they were cut off from and impervious to the cultural currents of the rest of the continent, and in addition received little stimulus to advancement from their unfertile environment, their enforced nomadic way of living, and their usually easily gathered sea-food supply. It is in just such isolated regions—jungle or mountain fastnesses, distant island groups, or the ends of peninsulas, continents, or archipelagos—farthest removed from cultural influences from temperate or tropical climes, that we find the lowest culture in other parts of the world. Cf. also Furlong, *q*, 5.

The more isolated of the two tribes of Canoe Indians should on this score have preserved better the earlier culture, and it is just the more isolated, the Yahgans and apparently the West Patagonian Alacaluf too, who have the slightly less advanced culture in Fuegia.

The evidence grouped under the above four heads seems accumulative and convergent, although of course far from being demonstrative. As far as it goes, it points to the Fuegian Canoe Indians as being, not cultural degenerates, but survivals, in the main unchanged, of a very early, and perhaps the earliest, aboriginal South American culture.

B. In what cultural relation do the Fuegians stand to peoples of very low culture in Indo-Oceanica and elsewhere?

There seems to be no adequate ground for doubting that these latter peoples, or most of them, are themselves in the main cultural survivals, not cultural degenerates. It is possible, for instance, that the Tasmanian represented a more or less disintegrated culture. Then, too, we know, for example, that most of the Negritos have acquired many elements from neighboring tribes. Moreover, time, isolation, and varying environment and needs have inevitably wrought some changes. But, apart from these exceptions or possible exceptions, we have very good reasons for regarding the Old World primitives as fundamentally and in the main the conservers of an ancient culture long outgrown by more progressive peoples.

Between this primitive Old World culture and the Fuegian there is practical equality of development or want of development. In addition, there is a noticeable parallelism or resemblance, a resemblance even more interesting in what is lacking than in what is present, and even more patent in the psychical than in the material fields (cf., e. g., H. Ling Roth, Aborigines of Tasmania, London, 1890; W. Schmidt, Die Stellung der Pygmäenvölker u. s. w., Stuttgart, 1910; A. LeRoy, Les Pygmées, Tours, 1905 ca.; Skeat and Blagden, Pagan races of the Malay Peninsula, 2 vols., London, 1906; C. G. and B. Z. Seligmann, Veddas, Cambridge, 1911). Viewing this parallelism and resemblance, not in itself alone, which would be taking sides in the convergence controversy, but in the light of the probabilities against major degeneration on the part either of the Fuegians or of the Old World primitives, we seem to have good grounds for suspecting that both groups have preserved fairly well an earlier common culture, and that both are, not unchanged, but only superficially changed, survivals from a common cultural ancestry.

The most obvious objection that might be raised against such a provisional conclusion is that based on the notorious instability of culture. This objection, however, would have more weight were we considering peoples of somewhat more advanced culture. But both archeology and ethnology give good evidence that *very low* culture may be as stable, or even more stable, than physical types; for the available archeological and paleontological evidence shows pretty clearly that the earlier paleolithic peoples remained nearly stationary in culture for periods measurable by millenia; while, as examples from ethnology, we may instance the somatologically distinct Semang, Sakai, and Jakun, all three at a nearly isoplane culture, or the various groups of Indo-Oceanic Negritos, who, separated from one another for many centuries at least and modified superficially by cultural accretions from neighboring tribes, still preserve in the main a common inherited material and psychical culture (cf. the cultural sections in Skeat and Blagden, and in W. Schmidt, ll. c.).

C. What bearing on the question has the Kulturkreis theory?

For an outline of Dr. Graebner's position, see Author Bibliography, under Graebner, *a* and *d*. Fathers Schmidt and Hestermann consider that their three earliest Indo-Oceanic strata, differing somewhat from Dr. Graebner's analysis, have been fused to a certain extent in southern South America, including Fuegia.

Dr. Graebner at first called attention chiefly to the skin mantle, the beehive hut, and half-hitch coiled basketry as being common to Fuegia and the Tasmanian and southeastern Australian areas. Later some other resemblances were noted by Fathers Schmidt and Hestermann (*b*, 115–117).

These resemblances in themselves might be the result of convergence rather than of genetic relationship; but, the advocates of the theory emphasize, they need to be viewed in the light of the similar stratification of cultures that prevails over the *whole* of Indo-Oceanica and the *whole* of South America. That such a parallel stratification exists, notwithstanding very considerable interlocking, overlapping, and disintegration of the several strata or cycles, especially in South America, is maintained by Dr. Graebner (*a, b*, and *d*), by Dr. Foy, and by Fathers W. Schmidt and Hestermann (cf. also E. Nordenskiöld).

The contrary view, so far as South America is concerned, is taken in a detailed criticism by Dr. Krause, and on more general grounds by Prof. Dixon and Dr. Krickeberg (163–164). See also R. H. Lowie, On the principle of convergence in ethnology, in *Jour. Amer. folk-lore*, 1912, xxv, 24-42; F. Boas, in *Science*, New York, 1911, n. s. xxxiv, 804–810.

But as yet a thorough and adequate treatment of the whole question of South American cultural stratification in its relation to Indo-

Oceanic has not been undertaken. More facts are needed, and a much more detailed analysis and coordination of the facts, before the question can be definitely decided. The field is a vast one.

If the Kulturkreis theory proves to hold good for the whole of South America, the question of the common cultural descent of the Fuegians and Indo-Oceanic primitives will receive a conclusive affirmative answer. If, on the contrary, it proves not to hold good, we shall be thrown back on the facts and considerations advanced in the preceding sections A and B as giving a provisional and probable, but, unless new data come to hand, not a final or strictly demonstrable answer.

The reader is referred to the sources given above for further details on the Kulturkreis theory in its extension to South America. Special references to Fuegia in this connection are contained in: Graebner, *a*, 1014, 1018; *b*, 149; *d*, 47–48; Foy, 26, 154; Schmidt and Hestermann, *b*, 115–117; Dixon, 53–54; Krause, 111.

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